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RESEARCH MEMORANDUM

for the

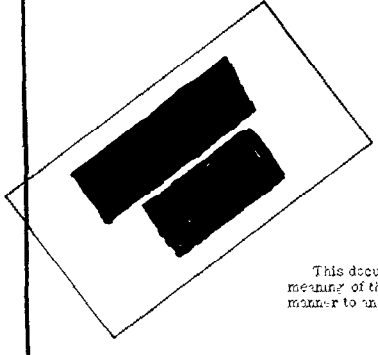
Bureau of Aeronautics, Department of the Navy

TABULATED PRESSURE COEFFICIENT DATA FROM A TAIL LOADS INVESTIGATION ON A 1/15-SCALE MODEL OF THE GOODYEAR XZP5K AIRSHIP

TED NO. NACA DE-211

By Michael D. Cannon

Langley Aeronautical Laboratory
Langley Field, Va.



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TABULATED PRESSURE COEFFICIENT DATA FROM A TAIL LOADS INVESTIGATION ON A 1/15-SCALE MODEL OF THE GOODYEAR XZP5K AIRSHIP

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SUMMARY

This paper contains tail and hull loads data obtained in an investigation of a 1/15-scale model of the Goodyear XZP5K airship. Data are presented in the form of tabulated pressure coefficients over a pitch and yaw range of $\pm 20^\circ$ and 0° to 30°, respectively, with various rudder and elevator deflections. Two tail configurations of different plan forms were tested on the model. The investigation was conducted in the Langley full-scale tunnel at a Reynolds number of approximately 16.5×10^6 based on hull length, which corresponds to a Mach number of about 0.12.

INTRODUCTION

Current requirements for the use of airships in antisubmarine operations necessitate maneuver rates substantially higher than those used in past years. These maneuvers result in operation at high pitch and yaw attitudes which have caused some tail surface failures in service operations. Airship tail loads data available at present for design purposes are limited to surfaces of low aspect ratio and relatively low airship attitude ranges. Because of this situation, the Bureau of Aeronautics, Department of the Navy, requested that a fin loads investigation be conducted on a 1/15-scale model of the Goodyear XZP5K airship in the Langley full-scale tunnel in order to extend tail loads data to high airship attitudes for conventional as well as high-aspect-ratio tail configurations.

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Tests were conducted for two inverted-Y tail configurations, selected by the Navy, having plan forms representing current designs. Tail loads data were obtained on both sets of surfaces by pressure measurement through a model pitch range of $\pm 20^{\circ}$ for a yaw range from 0° to 30°. Data were also obtained with control surfaces deflected.

This report presents the pressure data from this investigation in tabulated form. Data are presented without analyses to expedite publication. Six-component force data obtained in conjunction with these tests are presented in a separate report (ref. 1).

SYMBOLS

ψ	angle of yaw, positive when nose to right, deg
α	angle of pitch, positive when nose up, deg
δ_e	left elevator angle, positive when trailing edge deflected down, deg
δ_r	rudder angle, positive when trailing edge deflected to left, deg
R	Reynolds number, based on model length
p	local static pressure, lb/sq ft
q_o	free-stream dynamic pressure, $\frac{\rho U^2}{2}$, lb/sq ft
ρ	mass density of air, lb-sec^2/ft^4
U	free-stream velocity, ft/sec

MODEL

The model used for this investigation was a 1/15-scale model of the Goodyear XZP5K airship. This corresponds to a model length of 18.79 feet and a volume of 192.8 cubic feet. Figure 1 shows the model installed in the tunnel and figure 2 presents some of the more pertinent geometric characteristics of the hull.

[redacted]

Two sets of tails were used in the investigation. Both sets were inverted-Y tail arrangements with 120° radial spacing; however, the tails differed in plan form and area. The first, designated as the standard tail, was of the convential low-aspect-ratio design and had a rudder area approximately 24 percent of the total area. The second, designated the high-aspect-ratio tail, was smaller in area and had a rudder area approximately 45 percent of the total area. Plan forms and pertinent geometric characteristics of the two tail configurations are shown in figures 3 and 4. Pressure orifices were installed over both surfaces in the top and left fins of both tail configurations to provide complete fin loads pressure data. The geometric location of each orifice is shown in figures 5 and 6. Orifices were also installed on the horizontal center line of the hull and their forward and rearward locations are shown in table 81. All control surfaces were equipped with actuators allowing independent deflection of each control surface through a range of ±40°.

TESTS

Pressure data were obtained on the hull and on the top and left fins for both tail configurations over a pitch range of ±20° and for yawed attitudes from 0° to 30°. These data included measurements with rudder and elevator controls deflected independently up to ±40° for all model attitudes. Data were not taken on the right fin for any condition inasmuch as this surface was in the fuselage wake for all yaw conditions (positive yaw) and would therefore not be expected to be the critically loaded surface. For the purpose of this report the rudder is considered the control surface of the top fin and the elevator the control surface of the left side fin. The tests were conducted at a Reynolds number of approximately 16.5×10^6 based on model length which corresponds to a Mach number of about 0.12.

PRESENTATION OF DATA

As stated in the introduction, no attempt at analysis is made of the data in order to expedite publication. The pressure data, presented in tables 1 through 80 in terms of pressure coefficient p/q_o, cover the full range of pitch and yaw. Loads data for the standard tail are included in tables 1 to 40. Data for the vertical fin with rudder deflection and for the left side fin with elevator deflection are presented in tables 1 to 20 and 21 to 40, respectively. In addition, tables 1 to 20 include hull loads data, which are presented in the readings for manometer 9. Tables 41 to 80 contain loads data for the

high-aspect-ratio tail. The data for the vertical fin with rudder deflection and for the left side fin with elevator deflection are shown in tables 41 to 60 and 61 to 80, respectively. Loads data were taken simultaneously for both fins, but because no aerodynamic interaction was noted, and to keep down excessive bulk, only the data for the surface whose control was being deflected is presented.

Tables 81 and 82 are codes by which the pressure data for the standard tail and high-aspect-ratio tail, respectively, can be oriented to their specific sources on the fin. Both tables contain notes specifying which orifices were of questionable accuracy and, in addition, table 81 shows the airship fin arrangement.

Langley Aeronautical Laboratory,
National Advisory Committee for Aeronautics,
Langley Field, Va., February 15, 1956.

Michael D. Cannon
Michael D. Cannon
Aeronautical Research Scientist

Approved: Eugene C. Draley
Eugene C. Draley
Chief of Full-Scale Research Division

mr

REFERENCE

1. Cannon, Michael D.: Static Longitudinal and Lateral Stability and Control Data Obtained From Tests of a 1/15-Scale Model of the Goodyear XZP5K Airship. TED NO. NACA DE-211, NACA RM SL56A11, Bur. Aero., 1956.

TABLE 1

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.307	-.355	-.449	-.293	-.239	-.248	-.242	-.269	.636
2	-.377	-.397	-.405	-.293	-.233	-.244	-.248	-.265	.161
3	-.471	-.518	-.558	-.243	-.208	-.234	-.227	-.246	-.172
4	-.556	-.617	-.629	-.297	-.179	-.204	-.221	-.235	-.384
5	-.621	-.796	-1.002	-.278	-.151	-.172	-.204	-.235	-.419
6	-.655	-.748	-.771	-.247	-.395	-.163	-.183	-.250	-.448
7	-.795	.233	.421	-.243	.124	-.161	-.164	-.100	-.091
8	-.715	.341	.514	.367	.116	-.026	-.150	-.100	-.438
9	-.044	.434		.397	.107	-.026	-.072	-.081	-.347
10	-.008	.484	.495	.401	.095	-.030	-.088	-.063	.099
11	-.023	.545	.547	.403	.099	-.019	-.076	-.023	.035
12	-.013	.565	.788	.376	.101	-.049	-.070	.065	.010
13	-.010	-.312	-.482	.325	-.242	.009	-.061	-.283	.132
14	.023	-.368	-.524	.287	-.239	.036	-.030	-.298	.186
15	.000	-.499	-.468	-.253	-.227	-.250	-.015	.533	.101
16	.056	-.592	-.558	-.251	-.208	-.238	.025	-.088	.116
17	-.692	-.977	-.488	-.238	-.174	-.223	-.265	-.048	.141
18	.234	-.821	-.252	-.222	-.141	-.123	-.263	-.290	-.347
19	-.580	.480	.434	-.203	-.269	-.191	-.265	.615	-.436
20	.169	.555	.509	-.154	.046	-.191	-.282	-.040	-.446
21	-.435	.651	.545	.217	.038	-.091	.482	.633	-.444
22	.107	.697	.600	.217	.031	-.078	-.099	.619	-.415
23	-.178	.730	.608	.207	.038	-.068	-.109	-.221	-.372
24	.044	.730	.545	.192	.046	-.042	-.074	.077	-.143
				$\delta_r = -30°$					
1	-.230	-.247	-.421	-.233	-.238	-.242	/-.242	-.263	.632
2	-.301	-.319	-.432	-.239	-.230	-.244	-.255	-.263	.164
3	-.383	-.471	-.642	-.195	-.207	-.230	-.236	-.241	-.172
4	-.442	-.646	-.680	-.258	-.178	-.201	-.230	-.234	-.376
5	-.473	-.667	-1.769	-.263	-.159	-.168	-.215	-.218	-.413
6	-.509	-1.527	-3.035	-.263	-.277	-.154	-.197	-.230	-.442
7	-.576	.125	.412	-.271	.062	-.156	-.174	-.112	-.092
8	-1.265	.210	.482	.276	.062	-.063	-.159	-.124	-.431
9	-.045	.298	.549	.299	.048	-.063	-.095	-.108	-.335
10	-.016	.346	.613	.312	.048	-.063	-.110	-.087	.096
11	-.028	.411	.877	.314	.048	-.053	-.101	-.052	.033
12	-.010	.442	.939	.288	.056	-.059	-.091	.035	.014
13	.006	-.296	-.367	.250	-.236	-.016	-.074	-.280	.140
14	.037	-.313	-.412	.214	-.232	.014	-.043	-.280	.199
15	.004	-.481	-.412	-.201	-.226	-.246	-.027	.548	.096
16	.037	-.636	-.562	-.201	-.203	-.232	.010	-.112	.105
17	-.639	-.804	-.637	-.201	-.170	-.215	-.269	-.073	.136
18	.155	-1.446	-.780	-.203	-.143	-.145	-.269	-.284	-.353
19	-.507	.321	.423	-.179	-.193	-.186	-.271	.627	-.442
20	.104	.414	.486	-.148	-.004	-.182	-.290	-.066	-.446
21	-.336	.490	.529	.165	-.008	-.115	.468	.649	-.441
22	.045	.531	.533	.165	-.015	-.100	-.104	.633	-.411
23	-.169	.584	.462	.165	-.002	-.090	-.112	-.203	-.370
24	.006	.586	.285	.156	.010	-.061	-.081	.041	-.142
				$\delta_r = -20°$					
1	-.068	-.129	-.756	-.291	-.219	-.236	-.230	-.263	.633
2	-.129	-.194	-.821	-.297	-.210	-.230	-.244	-.259	.168
3	-.154	-.271	-1.135	-.245	-.183	-.226	-.221	-.232	-.164
4	-.156	-.365	-1.279	-.308	-.154	-.193	-.221	-.228	-.367
5	-.156	-.437	-1.825	-.308	-.143	-.157	-.196	-.205	-.405
6	-.156	-.979	-2.037	-.293	-.187	-.147	-.184	-.217	-.434
7	-.268	.065	.342	-.254	.010	-.133	-.159	-.134	-.069
8	-1.073	.131	.408	.141	.011	-.106	-.138	-.148	-.428
9	-.006	.198	.504	.166	.011	-.104	-.123	-.125	-.329
10	.017	.227	.642	.166	.013	-.104	-.134	-.102	.109
11	.008	.277	.965	.166	.027	-.085	-.123	-.067	.054
12	.015	.304	1.004	.154	.032	-.072	-.113	.013	.036
13	.021	-.225	-.492	.127	-.215	-.052	-.096	-.271	.164
14	.042	-.256	-.546	.112	-.213	-.025	-.069	-.271	.214
15	-.014	-.369	-.375	-.250	-.208	-.236	-.048	.585	.084
16	-.025	-.515	-.527	-.250	-.185	-.222	-.013	-.127	.109
17	-.226	-.627	-.608	-.237	-.152	-.203	-.255	-.098	.141
18	.091	-.981	-.663	-.233	-.124	-.164	-.255	-.263	-.340
19	-.210	.187	.285	-.214	-.152	-.168	-.253	.658	-.430
20	.062	.273	.352	-.177	-.040	-.161	-.257	-.088	-.432
21	-.149	.335	.377	.056	-.044	-.145	.539	.678	-.424
22	.031	.365	.335	.058	-.046	-.128	-.102	.660	-.402
23	-.162	.412	.235	.060	-.032	-.120	-.132	-.192	-.359
24	-.006	.423	.154	.058	-.011	-.091	-.106	.025	-.134

TABLE 1 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.080	-.045	-.334	-.211	-.180	-.216	-.218	-.249	.636
2	.053	-.058	-.409	-.211	-.169	-.210	-.233	-.247	.164
3	.031	-.112	-.585	-.168	-.147	-.204	-.210	-.227	-.172
4	.002	-.172	-.762	-.211	-.122	-.175	-.210	-.216	-.379
5	-.027	-.238	-.881	-.199	-.110	-.136	-.191	-.198	-.416
6	-.046	-.329	-.785	-.184	-.109	-.132	-.171	-.200	-.449
7	-.141	.006	.288	-.166	-.062	-.109	-.150	-.150	-.068
8	-.279	.041	.313	.025	-.058	-.146	-.125	-.170	-.439
9	.053	.074	.413	.044	-.056	-.142	-.154	-.148	-.337
10	.053	.074	.537	.043	-.043	-.142	-.168	-.127	.103
11	.029	.091	.624	.044	-.025	-.119	-.158	-.091	.050
12	.017	.120	.566	.037	-.025	-.074	-.145	-.013	.041
13	.004	-.149	-.324	.025	-.184	-.080	-.127	-.266	.176
14	.006	-.169	-.359	.025	-.186	-.053	-.092	-.268	.199
15	-.061	-.227	-.225	-.184	-.180	-.224	-.081	.590	.066
16	-.069	-.298	-.305	-.186	-.161	-.208	-.042	-.148	.085
17	-.082	-.337	-.263	-.174	-.132	-.187	-.249	-.118	.124
18	.010	-.362	-.367	-.174	-.107	-.123	-.249	-.270	-.358
19	-.034	.048	.104	-.159	-.107	-.152	-.247	.655	-.447
20	.015	.107	.146	-.130	-.103	-.136	-.247	-.100	-.447
21	.017	.143	.159	-.029	-.109	.175	.590	.684	-.443
22	.023	.149	.092	-.017	-.105	-.160	-.112	.663	-.414
23	-.145	.171	.027	-.017	-.079	-.148	-.162	-.171	-.373
24	-.027	.174	.040	-.010	-.054	-.119	-.133	-.006	-.147
				$\delta_r = 0°$					
1	.066	-.034	-.020	-.111	-.129	-.176	-.198	-.225	.626
2	.041	-.030	-.014	-.103	-.121	-.176	-.210	-.222	.159
3	.025	-.045	-.016	-.095	-.107	-.176	-.189	-.194	-.179
4	.010	-.065	-.114	-.103	-.088	-.145	-.167	-.182	-.386
5	.002	-.089	-.133	-.105	-.078	-.114	-.169	-.155	-.419
6	-.002	-.077	-.098	-.097	-.074	-.103	-.151	-.131	-.451
7	-.081	-.042	.029	-.081	-.121	-.083	-.130	-.180	-.064
8	-.101	-.040	.068	-.081	-.113	-.168	-.106	-.206	-.435
9	.070	-.040	.065	-.067	-.094	-.159	-.185	-.180	-.340
10	.045	-.059	.125	-.077	-.078	-.161	-.196	-.173	.111
11	.017	-.053	-.084	-.067	-.062	-.137	-.187	-.143	.064
12	-.002	-.057	-.170	-.077	-.058	-.079	-.172	-.075	.056
13	-.027	-.057	-.112	-.073	-.150	-.099	-.155	-.227	.191
14	-.037	-.053	-.112	-.059	-.150	-.070	-.124	-.214	.189
15	-.076	-.065	-.057	-.121	-.148	-.197	-.104	.661	.048
16	-.099	-.085	-.082	-.121	-.131	-.186	-.069	-.184	.076
17	-.037	-.099	-.080	-.111	-.105	-.164	-.228	-.167	.117
18	-.056	-.083	-.112	-.113	-.082	-.101	-.226	-.218	-.364
19	-.006	-.075	-.076	-.103	-.074	-.130	-.218	.698	-.457
20	-.023	-.057	-.096	-.081	-.140	-.114	-.204	-.143	-.455
21	.016	-.057	-.074	-.103	-.146	-.188	.633	.702	-.451
22	-.004	-.071	-.106	-.101	-.140	-.176	-.126	.706	-.419
23	-.132	-.063	-.098	-.095	-.111	-.161	-.193	-.108	-.378
24	-.072	-.051	-.096	-.079	-.084	-.137	-.163	-.069	-.147

TABLE 2

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.316	-.335	-.344	-.262	-.244	-.246	-.224	-.254	.914
2	-.338	-.362	-.354	-.264	-.222	-.232	-.226	-.250	.440
3	-.412	-.476	-.500	-.202	-.189	-.221	-.209	-.231	.074
4	-.477	-.575	-.551	-.262	-.165	-.191	-.201	-.233	-.168
5	-.541	-.783	-1.177	-.239	-.143	-.162	-.191	-.217	-.205
6	-.600	-.783	-.864	-.210	-.338	-.162	-.169	-.241	-.241
7	-.746	.289	.455	-.159	.120	-.141	-.152	-.083	-.049
8	-.656	.386	.547	.365	.120	-.033	-.130	-.099	-.221
9	.012	.469	.569	.406	.104	-.035	-.069	-.083	-.129
10	.047	.512	.455	.414	.084	-.035	-.073	-.068	.025
11	.014	.545	.356	.419	.077	-.029	-.075	-.035	-.004
12	.014	.531	.470	.394	.067	-.039	-.069	.037	-.014
13	.020	-.297	-.451	.326	-.240	-.018	-.059	-.262	.092
14	.045	-.319	-.492	.264	-.238	.000	-.037	-.278	.172
15	.020	-.465	-.419	-.229	-.216	-.250	-.030	.472	.090
16	.023	-.543	-.498	-.221	-.196	-.240	-.006	-.089	.086
17	-.627	-.998	-.510	-.202	-.163	-.219	-.232	-.058	.086
18	.256	-.886	-.264	-.181	-.132	-.129	-.230	-.268	-.117
19	-.500	.535	.453	-.151	-.271	-.189	-.230	.581	-.213
20	.207	.610	.539	-.115	.045	-.189	-.236	-.049	-.237
21	-.379	.667	.563	.212	.045	-.098	.465	.635	-.239
22	.150	.719	.563	.223	.029	-.086	-.073	.544	-.221
23	-.146	.750	.555	.223	.035	-.076	-.112	-.212	-.190
24	-.020	.697	.482	.200	.035	-.051	-.085	.049	.051
25	-.139	-.136	-.049	.157	.035	-.027	-.033	-.179	.399
26	-.029	.028	-.049	.142	.035	.014	.579	.039	-.051
				$\delta_r = -30°$					
1	-.240	-.256	-.466	-.268	-.224	-.239	-.223	-.224	.917
2	-.293	-.299	-.448	-.276	-.214	-.223	-.229	-.213	.421
3	-.366	-.400	-.601	-.212	-.182	-.213	-.205	-.183	.062
4	-.437	-.545	-.631	-.280	-.158	-.191	-.197	-.175	-.175
5	-.492	-.654	-1.607	-.268	-.130	-.155	-.187	-.144	-.210
6	-.539	-1.278	-2.582	-.268	-.158	-.147	-.165	-.128	-.244
7	-.606	.183	.405	-.232	.054	-.122	-.145	-.132	-.050
8	-.823	.258	.497	.248	.052	-.078	-.127	-.157	-.226
9	-.008	.327	.534	.286	.040	-.078	-.106	-.142	-.129
10	.004	.364	.546	.288	.022	-.080	-.114	-.144	.026
11	-.028	.419	.678	.292	.020	-.076	-.118	-.130	-.008
12	-.022	.419	.843	.268	.020	-.054	-.110	-.077	-.006
13	-.016	-.278	-.409	.212	-.228	-.056	-.100	-.201	.105
14	.008	-.283	-.448	.165	-.224	-.046	-.078	-.179	.187
15	-.006	-.411	-.391	-.238	-.204	-.231	-.066	.600	.087
16	-.006	-.539	-.528	-.234	-.182	-.221	-.046	-.159	.069
17	-.616	-.776	-.615	-.220	-.146	-.195	-.223	-.161	.069
18	.152	-1.335	-.640	-.208	-.118	-.195	-.225	-.171	-.121
19	-.455	.370	.413	-.181	-.140	-.159	-.221	.650	-.214
20	.106	.459	.493	-.147	-.014	-.153	-.211	-.140	-.244
21	-.329	.520	.525	.125	-.014	-.137	.522	.665	-.240
22	.073	.557	.513	.137	-.026	-.135	-.094	.624	-.212
23	-.165	.593	.440	.135	-.020	-.122	-.155	-.106	-.185
24	-.035	.569	.251	.123	-.016	-.104	-.133	-.069	.067
25	-.156	-.124	-.047	.085	-.018	-.082	-.088	-.102	.415
26	-.051	-.014	-.043	.079	-.014	-.042	.606	-.041	-.046
				$\delta_r = -20°$					
1	-.060	-.122	-.764	-.272	-.207	-.228	-.226	-.246	.936
2	-.126	-.189	-.798	-.288	-.197	-.220	-.228	-.246	.431
3	-.162	-.257	-1.102	-.216	-.163	-.206	-.210	-.221	.064
4	-.180	-.402	-1.058	-.282	-.133	-.180	-.198	-.221	-.177
5	-.184	-.438	-1.810	-.266	-.114	-.150	-.189	-.200	-.221
6	-.178	-.669	-1.894	-.244	-.118	-.139	-.169	-.203	-.254
7	-.244	.104	.361	-.210	.008	-.123	-.149	-.126	-.046
8	-.677	.155	.439	.153	.008	-.101	-.132	-.145	-.231
9	.028	.215	.521	.181	.004	-.099	-.122	-.132	-.137
10	.038	.243	.623	.185	-.002	-.099	-.122	-.120	.028
11	.018	.277	.856	.185	-.002	-.089	-.130	-.095	.002
12	.028	.275	.992	.165	-.002	-.053	-.114	-.027	.002
13	.028	-.231	-.477	.123	-.211	-.067	-.106	-.254	.129
14	.056	-.235	-.527	.093	-.203	-.055	-.084	-.254	.205
15	-.002	-.347	-.351	-.230	-.187	-.230	-.071	.523	.076
16	-.028	-.516	-.527	-.224	-.167	-.216	-.049	-.136	.060
17	-.273	-.612	-.589	-.212	-.129	-.192	-.236	-.110	.060
18	.100	-.769	-.635	-.196	-.106	-.121	-.236	-.242	-.129
19	-.208	.223	.311	-.165	-.108	-.158	-.232	.603	-.219
20	.080	.299	.379	-.137	-.042	-.147	-.232	-.093	-.241
21	-.140	.357	.403	.060	-.042	-.145	.483	.655	-.241
22	.052	.386	.357	.063	-.056	-.145	-.088	.578	-.217
23	-.140	.416	.251	.065	-.044	-.135	-.149	-.188	-.187
24	-.054	.394	.106	.060	-.034	-.111	-.126	-.019	.064
25	-.144	-.114	-.050	.034	-.028	-.089	-.079	-.165	.423
26	-.074	-.042	-.044	.032	-.026	-.050	.578	-.017	-.040

TABLE 2 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.093	-.041	-.350	-.194	-.179	-.208	-.198	-.222	.917
2	.067	-.057	-.437	-.200	-.173	-.200	-.206	-.214	.416
3	.040	-.102	-.618	-.151	-.137	-.194	-.185	-.186	.049
4	.014	-.169	-.761	-.190	-.113	-.170	-.173	-.186	-.187
5	-.014	-.228	-.922	-.175	-.105	-.140	-.167	-.151	-.227
6	-.034	-.272	-.732	-.159	-.111	-.132	-.149	-.137	-.256
7	-.113	.035	.318	-.123	-.056	-.108	-.130	-.159	-.039
8	-.246	.057	.358	.040	-.044	-.142	-.108	-.188	-.233
9	.077	.089	.437	.067	-.044	-.134	-.151	-.180	-.140
10	.073	.089	.541	.069	-.036	-.132	-.155	-.178	.030
11	.042	.106	.652	.069	-.034	-.116	-.155	-.155	.010
12	.030	.106	.648	.058	-.030	-.060	-.147	-.102	.012
13	.020	-.156	-.328	.040	-.188	-.092	-.132	-.210	.152
14	.024	-.173	-.366	.028	-.187	-.076	-.110	-.194	.195
15	-.042	-.226	-.221	-.173	-.173	-.214	-.102	.608	.053
16	-.069	-.291	-.292	-.169	-.149	-.206	-.073	-.184	.045
17	-.069	-.329	-.250	-.159	-.123	-.186	-.208	-.182	.047
18	.018	-.333	-.322	-.145	-.103	-.112	-.210	-.184	-.142
19	-.022	.083	.127	-.123	-.111	-.154	-.196	.655	-.229
20	.028	.128	.175	-.097	-.091	-.136	-.187	-.157	-.256
21	.026	.161	.185	-.014	-.087	-.172	.542	.688	-.256
22	.036	.167	.121	-.006	-.097	-.162	-.094	.635	-.223
23	-.141	.189	.050	-.004	-.071	-.150	-.173	-.112	-.191
24	-.077	.175	.024	.002	-.058	-.126	-.163	-.098	.059
25	-.135	-.110	-.036	-.006	-.048	-.106	-.118	-.102	.414
26	-.087	-.061	-.036	-.002	-.038	-.064	.613	-.073	-.034
				$\delta_r = 0°$					
1	.111	.000	.010	-.091	-.123	-.162	-.187	-.199	.916
2	.083	.000	.014	-.077	-.111	-.162	-.195	-.191	.429
3	.060	-.020	.014	-.067	-.091	-.154	-.179	-.174	.061
4	.042	-.032	-.071	-.079	-.079	-.133	-.166	-.164	-.170
5	.034	-.052	-.147	-.075	-.067	-.109	-.160	-.130	-.215
6	.026	-.042	-.071	-.069	-.067	-.091	-.142	-.108	-.245
7	-.040	-.006	.030	-.054	-.113	-.073	-.127	-.168	-.029
8	-.063	-.012	.081	-.063	-.101	-.172	-.101	-.209	-.221
9	.101	-.014	.081	-.048	-.093	-.166	-.183	-.195	-.131
10	.085	-.028	.133	-.050	-.079	-.160	-.187	-.181	.043
11	.048	-.028	-.038	-.050	-.069	-.139	-.187	-.170	.022
12	.030	-.028	-.131	-.050	-.067	-.065	-.177	-.124	.045
13	.006	-.030	-.089	-.050	-.148	-.117	-.160	-.193	.186
14	.000	-.028	-.091	-.048	-.146	-.099	-.136	-.181	.184
15	-.042	-.040	-.034	-.103	-.134	-.182	-.125	.600	.043
16	-.065	-.054	-.053	-.101	-.123	-.170	-.101	-.193	.037
17	-.012	-.066	-.014	-.089	-.097	-.149	-.207	-.193	.049
18	-.022	-.048	-.079	-.089	-.081	-.075	-.207	-.183	-.137
19	.018	-.048	-.046	-.081	-.079	-.115	-.193	.651	-.219
20	.004	-.032	-.067	-.065	-.136	-.095	-.181	-.166	-.243
21	.046	-.032	-.055	-.089	-.134	-.202	.575	.696	-.209
22	.028	-.040	-.075	-.081	-.136	-.190	-.103	.623	-.215
23	-.125	-.036	-.103	-.073	-.105	-.178	-.197	-.089	-.180
24	-.075	-.034	-.079	-.060	-.085	-.160	-.183	-.112	.061
25	-.127	-.089	-.026	-.058	-.077	-.135	-.142	-.087	.411
26	-.093	-.078	-.026	-.042	-.069	-.099	.626	-.091	-.027

TABLE 3

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.331	-.348	-.396	-.217	-.161	-.150	-.157	-.166	1.000
2	-.344	-.323	-.342	-.219	-.151	-.150	-.168	-.178	.506
3	-.327	-.360	-.376	-.168	-.118	-.150	-.166	-.168	.138
4	-.356	-.441	-.438	-.211	-.089	-.123	-.151	-.170	-.103
5	-.413	-.638	-1.154	-.191	-.089	-.103	-.151	-.155	-.146
6	-.472	-.787	-.973	-.166	-.139	-.103	-.126	-.180	-.183
7	-.636	.348	.425	-.145	.176	-.088	-.122	-.025	-.039
8	-.581	.453	.573	.365	.174	.053	-.114	-.041	-.146
9	.127	.513	.631	.424	.143	.037	.006	-.041	-.066
10	.135	.536	.498	.434	.110	.029	-.008	-.039	-.066
11	.102	.559	.247	.445	.089	.021	-.021	-.021	-.070
12	.102	.516	.226	.418	.072	-.012	-.021	.033	-.027
13	.098	-.315	-.438	.348	-.161	.029	-.019	-.166	.105
14	.102	-.300	-.454	.268	-.155	.027	-.019	-.188	.177
15	.084	-.331	-.336	-.176	-.145	-.158	-.004	.491	.105
16	.043	-.412	-.421	-.172	-.124	-.158	.006	-.029	.039
17	-.524	-.843	-.450	-.156	-.097	-.156	-.166	-.027	-.002
18	.309	-.946	-.228	-.133	-.077	-.074	-.178	-.161	-.049
19	-.389	.524	.421	-.107	-.116	-.121	-.188	.592	-.132
20	.278	.667	.550	-.078	.110	-.136	-.203	.004	-.177
21	-.358	.720	.624	.242	.101	-.004	.356	.545	-.177
22	.249	.737	.606	.256	.077	-.016	-.054	.530	-.152
23	-.184	.760	.525	.256	.081	-.012	-.041	-.155	-.126
24	.047	.696	.429	.236	.068	-.004	-.037	.037	.126
25	-.135	-.091	-.052	.186	.050	.008	.010	-.120	.477
26	.029	.031	-.052	.152	.046	.041	.476	.037	-.039
				$\delta_r = -30°$					
1	-.241	-.315	-.474	-.188	-.137	-.170	-.144	-.176	1.012
2	-.247	-.294	-.384	-.198	-.127	-.166	-.154	-.186	.494
3	-.288	-.329	-.476	-.155	-.097	-.164	-.156	-.173	.120
4	-.347	-.445	-.546	-.204	-.075	-.143	-.140	-.184	-.112
5	-.400	-.607	-1.201	-.192	-.061	-.120	-.140	-.171	-.155
6	-.461	-.942	-2.066	-.182	-.061	-.116	-.118	-.194	-.185
7	-.586	.253	.398	-.161	.113	-.110	-.112	-.043	-.036
8	-.608	.335	.522	.263	.109	.017	-.103	-.061	-.145
9	.096	.373	.608	.314	.085	.006	-.014	-.057	-.062
10	.096	.393	.606	.322	.065	-.002	-.022	-.051	-.064
11	.051	.420	.573	.329	.053	-.002	-.032	-.031	-.066
12	.035	.387	.637	.302	.044	-.023	-.032	.033	-.016
13	.035	-.265	-.359	.241	-.133	.004	-.032	-.176	.120
14	.045	-.244	-.382	.178	-.135	.004	-.022	-.206	.181
15	.016	-.306	-.304	-.157	-.123	-.172	-.014	.473	.086
16	-.022	-.439	-.431	-.159	-.101	-.174	.000	-.037	.024
17	-.502	-.658	-.462	-.155	-.077	-.170	-.148	-.031	-.012
18	.192	-1.050	-.517	-.139	-.053	-.149	-.160	-.182	-.060
19	-.357	.369	.411	-.118	-.061	-.143	-.172	.582	-.145
20	.165	.507	.520	-.092	.061	-.160	-.191	-.002	-.177
21	-.292	.563	.583	.167	.057	-.029	.387	.539	-.179
22	.159	.578	.546	.178	.032	-.033	-.041	.518	-.155
23	-.104	.600	.452	.184	.032	-.031	-.049	-.178	-.116
24	-.002	.542	.279	.163	.032	-.017	-.039	.035	.137
25	-.102	-.077	-.039	.122	.022	.000	.006	-.137	.498
26	-.006	.012	-.037	.104	.018	.031	.487	.029	-.038
				$\delta_r = -20°$					
1	.026	-.094	-.646	-.175	-.131	-.143	-.137	-.158	1.014
2	-.081	-.139	-.633	-.187	-.129	-.145	-.149	-.166	.523
3	-.132	-.204	-.815	-.149	-.103	-.141	-.149	-.162	.142
4	-.165	-.302	-.888	-.204	-.082	-.121	-.141	-.162	-.111
5	-.198	-.351	-1.568	-.193	-.066	-.105	-.133	-.150	-.158
6	-.226	-.549	-1.880	-.177	-.078	-.097	-.117	-.160	-.191
7	-.242	.184	.375	-.157	.066	-.081	-.109	-.053	-.033
8	-.415	.229	.468	.193	.064	-.022	-.097	-.073	-.158
9	.143	.265	.595	.224	.045	-.032	-.040	-.073	-.076
10	.114	.278	.635	.224	.031	-.038	-.050	-.071	-.074
11	.067	.296	.766	.236	.021	-.040	-.066	-.055	-.074
12	.057	.273	.872	.208	.021	-.030	-.056	-.010	-.014
13	.057	-.182	-.365	.163	-.133	-.030	-.050	-.152	.130
14	.067	-.163	-.407	.116	-.133	-.030	-.048	-.176	.179
15	.035	-.241	-.224	-.145	-.127	-.149	-.032	.490	.070
16	-.022	-.400	-.381	-.147	-.111	-.141	-.020	-.049	.004
17	-.261	-.492	-.475	-.145	-.086	-.143	-.147	-.051	-.021
18	.132	-.676	-.491	-.138	-.066	-.071	-.165	-.154	-.060
19	-.179	.269	.326	-.118	-.076	-.107	-.165	.595	-.148
20	.124	.357	.413	-.094	.025	-.107	-.179	-.024	-.189
21	-.130	.404	.452	.116	.018	-.065	.447	.563	-.191
22	.132	.420	.399	.124	.008	-.073	-.044	.520	-.173
23	-.116	.435	.291	.126	.008	-.073	-.072	-.138	-.144
24	-.010	.392	.136	.114	.008	-.063	-.066	.002	.109
25	-.112	-.069	-.031	.084	.000	-.048	-.024	-.117	.469
26	-.022	-.012	-.029	.073	.002	-.024	.531	.000	-.031

TABLE 3 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.142	.020	-.220	-.097	-.089	-.127	-.119	-.135	1.010
2	.136	.006	-.352	-.111	-.089	-.122	-.130	-.145	.509
3	.107	-.045	-.535	-.087	-.071	-.116	-.132	-.129	.137
4	.078	-.102	-.665	-.123	-.051	-.098	-.121	-.129	-.111
5	.041	-.157	-.839	-.107	-.047	-.090	-.115	-.119	-.156
6	.021	-.181	-.778	-.089	-.045	-.076	-.099	-.119	-.192
7	-.045	.112	.364	-.065	.020	-.063	-.093	-.065	-.012
8	-.142	.138	.411	.109	.020	-.063	-.081	-.094	-.152
9	.152	.153	.533	.127	.014	-.073	-.061	-.094	-.065
10	.150	.145	.577	.125	.010	-.073	-.079	-.090	-.055
11	.107	.153	.642	.125	.010	-.071	-.081	-.076	-.051
12	.094	.138	.663	.107	.010	-.037	-.079	-.035	.016
13	.082	-.067	-.224	.085	-.101	-.059	-.075	-.133	.164
14	.082	-.098	-.280	.067	-.103	-.057	-.067	-.147	.182
15	.033	-.159	-.157	-.083	-.097	-.133	-.053	.524	.055
16	-.027	-.220	-.220	-.091	-.083	-.122	-.036	-.067	-.006
17	-.016	-.253	-.191	-.091	-.065	-.118	-.126	-.078	-.030
18	.080	-.255	-.232	-.079	-.053	-.063	-.142	-.129	-.063
19	.043	.149	.185	-.060	-.055	-.088	-.144	.609	-.147
20	.099	.193	.236	-.040	-.014	-.082	-.150	-.043	-.180
21	.097	.220	.248	.060	-.016	-.100	.470	.589	-.190
22	.119	.222	.175	.060	-.039	-.104	-.045	.544	-.162
23	-.103	.230	.098	.065	-.018	-.104	-.091	-.102	-.131
24	-.021	.206	.051	.056	-.010	-.092	-.085	-.033	.111
25	-.099	-.055	-.024	.042	-.010	-.084	-.049	-.086	.471
26	-.031	-.026	-.016	.040	-.008	-.059	.530	-.025	-.010
				$\delta_r = 0°$					
1	.166	.075	.106	-.008	-.036	-.095	-.091	-.118	1.006
2	.144	.065	.106	-.006	-.038	-.105	-.107	-.128	.490
3	.119	.034	.068	-.006	-.032	-.103	-.109	-.114	.117
4	.099	.018	-.004	-.006	-.024	-.089	-.095	-.118	-.121
5	.099	.000	-.098	-.008	-.018	-.079	-.097	-.096	-.158
6	.083	.008	-.042	.004	-.018	-.067	-.074	-.088	-.192
7	.024	.067	.155	.014	-.030	-.061	-.072	-.090	-.004
8	.008	.054	.149	.014	-.030	-.079	-.058	-.126	-.148
9	.154	.042	.145	.014	-.030	-.085	-.097	-.120	-.059
10	.144	.018	.181	.004	-.028	-.087	-.099	-.118	-.036
11	.109	.022	.028	.006	-.024	-.081	-.115	-.112	-.026
12	.089	.020	-.016	.000	-.024	-.034	-.107	-.072	.042
13	.069	.052	-.018	-.002	-.064	-.061	-.097	-.114	.182
14	.061	.034	-.028	.002	-.064	-.055	-.093	-.114	.178
15	.020	.018	.028	-.018	-.064	-.116	-.078	.569	.032
16	-.012	.000	.006	-.018	-.056	-.116	-.060	-.098	-.028
17	.043	-.014	.046	-.018	-.046	-.116	-.103	-.118	-.042
18	.032	.000	-.004	-.018	-.036	-.037	-.117	-.096	-.065
19	.083	.040	.006	-.012	-.034	-.089	-.119	.643	-.150
20	.061	.038	-.002	.000	-.056	-.093	-.109	-.080	-.178
21	.111	.028	.010	-.016	-.058	-.103	.525	.603	-.178
22	.091	.012	-.008	-.016	-.074	-.105	-.048	.575	-.154
23	-.083	.022	-.042	-.016	-.054	-.097	-.121	-.072	-.113
24	-.043	.018	-.028	-.016	-.038	-.081	-.119	-.074	.144
25	-.081	-.050	-.010	-.014	-.036	-.065	-.091	-.068	.508
26	-.051	-.046	-.008	-.004	-.036	-.037	.555	-.056	-.004

TABLE 4

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.282	-.305	-.368	-.198	-.127	-.113	-.103	-.098	.925
2	-.306	-.325	-.360	-.190	-.099	-.099	-.099	-.102	.435
3	-.343	-.379	-.406	-.139	-.062	-.084	-.089	-.102	.073
4	-.383	-.469	-.461	-.178	-.041	-.072	-.095	-.112	-.175
5	-.417	-.665	-1.290	-.157	-.031	-.049	-.091	-.108	-.224
6	-.476	-.938	-1.171	-.145	-.047	-.049	-.073	-.134	-.258
7	-.690	.283	.443	-.147	.195	-.041	-.075	.026	-.034
8	-.649	.445	.577	.378	.209	.088	-.077	.035	-.222
9	.060	.581	.662	.439	.185	.099	.063	.047	-.157
10	.161	.581	.525	.463	.142	.093	.069	.047	-.232
11	.181	.561	.298	.478	.111	.076	.075	.061	-.167
12	.185	.479	.264	.447	.092	.012	.075	.102	-.073
13	.181	-.301	-.402	.351	-.117	.066	.073	-.104	.077
14	.177	-.301	-.435	.261	-.109	.060	.075	-.128	.137
15	.121	-.363	-.338	-.147	-.082	-.093	.075	.437	.095
16	.034	-.449	-.421	-.133	-.062	-.091	.083	.053	.000
17	-.571	-.882	-.503	-.106	-.045	-.086	-.101	.077	-.131
18	.371	-1.096	-.282	-.094	-.027	-.025	-.119	-.106	-.133
19	-.423	.479	.455	-.073	-.035	-.058	-.141	.522	-.202
20	.369	.633	.567	-.065	.136	-.086	-.206	.083	-.248
21	-.363	.770	.658	.259	.140	.053	.147	.474	-.242
22	.266	.770	.638	.282	.138	.060	-.004	.474	-.218
23	-.075	.739	.539	.300	.123	.062	.058	-.106	-.190
24	.065	.631	.406	.273	.105	.072	.087	.104	.056
25	-.050	-.024	-.036	.210	.082	.078	.155	-.071	.409
26	.063	.068	-.030	.165	.072	.097	.288	.091	-.032
				$\delta_r = -30°$					
1	-.222	-.229	-.525	-.168	-.100	-.096	-.090	-.085	.923
2	-.264	-.259	-.513	-.162	-.066	-.086	-.088	-.097	.418
3	-.319	-.320	-.564	-.119	-.042	-.092	-.084	-.093	.055
4	-.366	-.449	-.564	-.151	-.006	-.066	-.073	-.097	-.197
5	-.409	-.650	-1.193	-.143	-.006	-.049	-.071	-.097	-.237
6	-.486	-.868	-1.969	-.125	-.012	-.045	-.053	-.127	-.270
7	-.630	.221	.413	-.117	.152	-.041	-.049	.028	-.032
8	-.640	.348	.532	.297	.176	.057	-.047	.036	-.225
9	.061	.449	.646	.346	.152	.076	.041	.042	-.160
10	.134	.445	.658	.364	.122	.059	.035	.048	-.231
11	.134	.437	.625	.368	.102	.055	.039	.070	-.162
12	.122	.385	.599	.348	.086	.004	.039	.123	-.065
13	.110	-.247	-.371	.270	-.090	.049	.039	-.089	.091
14	.116	-.249	-.407	.198	-.076	.039	.029	-.119	.148
15	.065	-.326	-.330	-.133	-.048	-.088	.041	.455	.075
16	-.018	-.441	-.454	-.106	-.032	-.086	.049	.042	-.026
17	-.543	-.678	-.452	-.094	-.016	-.084	-.090	.076	-.154
18	.250	-.974	-.493	-.074	-.002	-.031	-.094	-.091	-.146
19	-.374	.352	.424	-.053	-.002	-.055	-.092	.551	-.209
20	.248	.504	.538	-.033	.110	-.082	-.118	.076	-.254
21	-.293	.615	.627	.204	.118	.033	.385	.501	-.252
22	.201	.613	.599	.219	.112	.043	-.004	.489	-.221
23	-.059	.609	.477	.225	.112	.043	.031	-.109	-.178
24	.039	.528	.281	.215	.096	.047	.041	.115	.077
25	-.057	-.024	-.033	.166	.076	.057	.084	-.062	.428
26	.039	.059	-.031	.139	.066	.078	.466	.093	-.024
				$\delta_r = -20°$					
1	.002	-.050	-.733	-.176	-.089	-.104	-.095	-.099	.945
2	-.034	-.081	-.901	-.198	-.067	-.082	-.089	-.099	.425
3	-.073	-.145	-1.093	-.128	-.038	-.084	-.083	-.097	.062
4	-.089	-.292	-.893	-.160	-.010	-.053	-.083	-.099	-.181
5	-.128	-.356	-1.582	-.142	-.006	-.047	-.073	-.085	-.222
6	-.166	-.629	-1.858	-.123	.000	-.045	-.053	-.113	-.253
7	-.205	.166	.393	-.099	.123	-.043	-.057	.004	-.014
8	-.337	.273	.486	.223	.138	.033	-.053	.000	-.216
9	.099	.350	.660	.275	.128	.055	.024	.014	-.148
10	.164	.340	.739	.289	.101	.047	.030	.016	-.207
11	.150	.340	.757	.298	.087	.035	.040	.024	-.148
12	.156	.292	.790	.269	.067	.004	.028	.074	-.039
13	.146	-.211	-.414	.206	-.083	.039	.036	-.097	.109
14	.154	-.168	-.479	.156	-.077	.037	.032	-.113	.170
15	.103	-.240	-.255	-.128	-.061	-.086	.047	.505	.070
16	.026	-.398	-.399	-.111	-.030	-.086	.053	.026	-.041
17	-.223	-.489	-.463	-.089	-.016	-.092	-.089	.042	-.152
18	.211	-.752	-.488	-.073	-.004	-.018	-.099	-.091	-.133
19	-.103	.257	.344	-.045	-.002	-.061	-.115	.557	-.201
20	.213	.381	.434	-.028	.083	-.092	-.156	.054	-.242
21	-.043	.472	.500	.162	.091	.024	.314	.503	-.248
22	.178	.470	.440	.172	.079	.035	.002	.531	-.216
23	-.083	.468	.313	.192	.091	.043	.028	-.089	-.175
24	.043	.402	.152	.180	.079	.049	.049	.068	.082
25	-.059	-.025	-.025	.138	.063	.049	.099	-.054	.437
26	.041	.046	-.021	.109	.059	.076	.421	.056	-.021

TABLE 4 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.131	.012	-.240	-.085	-.044	-.077	-.067	-.078	.924
2	.143	.014	-.326	-.073	-.026	-.053	-.065	-.085	.424
3	.141	-.002	-.508	-.054	-.004	-.053	-.073	-.072	.068
4	.125	-.053	-.608	-.069	.020	-.041	-.061	-.082	-.187
5	.097	-.101	-.768	-.046	.026	-.028	-.057	-.074	-.217
6	.071	-.147	-.668	-.024	.022	-.024	-.041	-.097	-.255
7	.016	.121	.358	-.006	.072	-.008	-.041	.006	.004
8	-.073	.188	.442	.133	.087	.002	-.041	-.008	-.213
9	.131	.224	.586	.165	.087	.016	-.014	.006	-.149
10	.183	.204	.660	.181	.072	.006	-.004	.000	-.201
11	.177	.214	.638	.192	.056	.008	.004	.022	-.116
12	.167	.192	.640	.169	.062	.012	.000	.072	.000
13	.153	-.073	-.218	.141	-.052	.018	.002	-.064	.141
14	.147	-.077	-.258	.127	-.040	.010	.004	-.085	.167
15	.101	-.117	-.128	-.056	-.028	-.063	.002	.505	.056
16	.036	-.162	-.180	-.034	-.020	-.053	.010	.008	-.064
17	.038	-.186	-.152	-.024	-.004	-.049	-.061	.032	-.173
18	.143	-.220	-.180	-.014	.010	-.002	-.071	-.060	-.145
19	.085	.156	.190	.010	.010	-.014	-.086	.573	-.211
20	.159	.240	.266	.026	.034	-.045	-.092	.030	-.241
21	.103	.293	.300	.097	.044	-.010	.440	.525	-.239
22	.157	.285	.226	.113	.046	-.004	-.008	.527	-.215
23	-.052	.287	.158	.135	.058	-.004	.002	-.072	-.177
24	.042	.251	.094	.125	.048	.004	.008	.060	.064
25	-.038	.002	-.008	.105	.050	.016	.053	-.044	.428
26	.028	.034	-.014	.097	.042	.028	.513	.050	.010
				$\delta_r = 0°$					
1	.149	.064	.095	.020	-.010	-.026	-.035	-.030	.919
2	.157	.084	.168	.034	.014	-.018	-.033	-.038	.435
3	.157	.086	.149	.030	.031	-.012	-.035	-.030	.071
4	.153	.076	.069	.050	.037	-.006	-.041	-.036	-.173
5	.153	.058	-.026	.062	.037	.000	-.031	-.018	-.212
6	.137	.066	.022	.072	.033	.008	-.020	-.028	-.254
7	.101	.054	.162	.074	.006	.016	-.026	-.016	.020
8	.074	.084	.212	.040	.033	-.016	-.026	-.026	-.208
9	.139	.112	.222	.070	.041	.012	-.029	-.018	-.141
10	.159	.084	.246	.072	.039	.004	-.022	-.024	-.188
11	.149	.088	.111	.090	.043	.008	-.018	-.006	-.101
12	.145	.082	.069	.072	.045	.022	-.014	.026	.032
13	.127	.048	.000	.060	-.027	.016	-.010	-.028	.147
14	.125	.078	.008	.076	-.008	.016	-.006	-.022	.149
15	.087	.076	.079	.016	.002	-.018	.006	.581	.030
16	.048	.064	.057	.032	.012	-.020	.014	-.012	-.087
17	.107	.048	.111	.044	.016	-.028	-.041	-.012	-.187
18	.095	.058	.065	.042	.016	.034	-.049	-.020	-.143
19	.141	.038	.018	.052	.014	.008	-.053	.617	-.206
20	.121	.072	.030	.068	-.012	-.008	-.081	.010	-.246
21	.133	.090	.073	.028	.004	.000	.448	.555	-.244
22	.119	.092	.063	.046	.012	-.002	-.008	.585	-.220
23	.004	.092	.026	.064	.035	.000	-.018	-.020	-.173
24	.014	.088	.051	.074	.029	.004	-.008	.020	.073
25	-.002	.004	.008	.058	.033	.010	.029	.000	.427
26	.000	.022	.016	.072	.035	.034	.505	.032	.016

TABLE 5

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.403	-.453	-.550	-.374	-.216		-.164		.673
2	-.464	-.509	-.570	-.332	-.141		-.143		.202
3	-.509	-.618	-.669	-.212	-.027		-.100		-.142
4	-.568	-.841	-.811	-.256	.008		-.071		-.367
5	-.643	-1.061	-1.954	-.183	.023		-.054		-.406
6	-.768	-1.340	-1.893	-.137	.004		-.019		-.444
7	-.858	.052	.398	-.134	.114		-.010		.012
8	-.839	.200	.518	.319	.166		-.004		-.427
9	-.238	.503	.667	.349	.234		-.023		-.365
10	-.155	.662	.570	.397	.208		-.006		-.469
11	-.044	.660	.368	.445	.176		.031		-.260
12	.119	.555	.366	.475	.158		.071		-.171
13	.232	-.472	-.604	.399	-.197		.094		.023
14	.315	-.484	-.636	.311	-.158		.112		.056
15	.267	-.568	-.539	-.286	-.077		.129		.006
16	.165	-.772	-.726	-.252	-.015		.141		-.079
17	-.985	-1.253	-.749	-.149	.010		-.127		-.367
18	.476	-1.597	-.501	-.084	.031		-.127		-.340
19	-.735	.342	.425	-.040	.017		-.098		-.392
20	.307	.466	.505	-.013	.060		-.125		-.429
21	-.541	.699	.655	.197	.068		.355		-.425
22	-.029	.818	.710	.212	.135		-.012		-.400
23	-.044	.789	.600	.269	.166		.013		-.352
24	.131	.668	.406	.324	.176		.067		-.125
25	-.015	.023	.015	.263	.153		.148		.198
26	.132	.131	.017	.216	.139		.461		.017
				$\delta_r = -30°$					
1	-.393	-.386	-1.012	-.416	-.244	-.198	-.176	-.156	.662
2	-.424	-.553	-1.160	-.380	-.176	-.124	-.151	-.133	.192
3	-.390	-.702	-1.622	-.252	-.054	-.085	-.103	-.104	-.148
4	-.289	-.771	-1.550	-.306	-.014	-.027	-.075	-.090	-.361
5	-.217	-.723	-2.854	-.250	-.006	-.004	-.066	-.076	-.420
6	-.176	-1.438	-3.692	-.204	-.044	.004	-.023	-.102	-.449
7	-.273	-.006	.353	-.193	.081	.021	-.012	-.031	.015
8	-.599	.155	.435	.214	.135	-.021	-.014	-.008	-.430
9	-.176	.461	.659	.247	.211	.037	-.027	.037	-.369
10	-.076	.579	.731	.295	.178	.074	-.017	.066	-.486
11	.047	.566	.749	.360	.159	.118	.023	.109	-.263
12	.202	.465	.704	.393	.132	.062	.068	.188	-.171
13	.310	-.499	-.708	.328	-.226	.124	.097	-.141	.027
14	.362	-.577	-.782	.237	-.191	.120	.116	-.129	.073
15	.295	-.734	-.749	-.304	-.108	-.130	.128	.535	-.008
16	.180	-.975	-1.016	-.272	-.054	-.091	.141	.000	-.111
17	-.386	-1.025	-.908	-.177	-.012	-.062	-.135	.047	-.407
18	.430	-1.706	-.934	-.121	.006	-.039	-.124	-.127	-.347
19	-.547	.201	.368	-.073	-.029	.000	-.118	.656	-.403
20	.293	.369	.446	-.046	.035	-.017	-.132	.041	-.443
21	-.558	.614	.602	.121	.046	-.002	.344	.721	-.436
22	-.016	.709	.628	.131	.120	.025	-.006	.572	-.405
23	-.045	.686	.472	.220	.159	.066	.004	-.066	-.351
24	.130	.554	.230	.262	.155	.101	.064	.182	-.136
25	-.008	.021	.014	.220	.124	.124	.153	-.037	.173
26	.128	.126	.019	.187	.128	.153	.456	.156	.017
				$\delta_r = -20°$					
1	-.176	-.198	-.948	-.348	-.222	-.175	-.140	-.145	.658
2	-.145	-.221	-1.167	-.313	-.137	-.096	-.115	-.110	.201
3	-.100	-.181	-1.384	-.174	-.010	-.058	-.079	-.072	-.153
4	-.064	-.249	-1.326	-.209	.029	-.012	-.040	-.061	-.376
5	-.029	-.304	-1.691	-.123	.039	.015	-.017	-.046	-.423
6	.004	-.542	-1.849	-.078	.019	.023	.010	-.070	-.458
7	-.064	-.065	.285	-.033	.006	.039	.012	-.029	.014
8	-.295	.074	.371	.112	.072	-.066	.033	-.025	-.450
9	-.152	.338	.631	.151	.161	.002	-.063	.021	-.375
10	-.088	.420	.796	.198	.161	.035	-.062	.055	-.469
11	.021	.437	.903	.256	.149	.091	-.015	.091	-.253
12	.148	.380	.918	.295	.133	.060	.023	.145	-.156
13	.229	-.357	-.621	.270	-.203	.100	.052	-.097	.048
14	.283	-.369	-.683	.227	-.164	.096	.071	-.076	.077
15	.230	-.367	-.388	-.249	-.079	-.121	.088	.573	-.015
16	.152	-.424	-.449	-.205	-.017	-.096	.100	-.023	-.137
17	-.100	-.496	-.470	-.098	.021	-.046	-.100	.019	-.419
18	.330	-.686	-.468	-.037	.043	-.023	-.083	-.076	-.363
19	-.115	.080	.217	.014	.033	.004	-.060	.691	-.417
20	.203	.215	.291	.039	-.008	.004	-.046	.000	-.452
21	-.174	.435	.450	.051	.008	-.046	.529	.741	-.448
22	-.057	.527	.468	.074	.072	.000	-.010	.573	-.411
23	-.020	.530	.365	.160	.132	.035	-.042	-.040	-.359
24	.119	.456	.210	.215	.130	.079	.010	.149	-.135
25	-.006	.048	.017	.198	.112	.104	.075	-.013	.183
26	.111	.108	.019	.178	.116	.125	.573	.145	.017

[redacted]

TABLE 5 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	-.060	-.178	-.417	-.232	-.152	-.135	-.117	-.107	.666
2	-.054	-.152	-.484	-.197	-.078	-.066	-.096	-.080	.195
3	.012	-.051	-.516	-.089	.025	-.041	-.060	-.035	-.146
4	.065	-.035	-.589	-.089	.062	.006	-.025	-.014	-.385
5	.094	-.053	-.649	-.002	.068	.025	-.012	.019	-.434
6	.108	-.064	-.566	.039	.080	.033	.023	.017	-.477
7	.081	-.129	.233	.064	-.049	.050	.027	-.052	.031
8	.019	-.018	.339	.000	.025	-.083	.033	-.058	-.436
9	-.081	.186	.558	.056	.111	-.015	-.072	-.008	-.355
10	-.040	.268	.667	.098	.115	.021	-.055	.010	-.455
11	.031	.283	.700	.162	.115	.062	-.002	.035	-.215
12	.125	.256	.698	.205	.115	.048	.029	.083	-.111
13	.173	-.246	-.368	.193	-.150	.081	.055	-.080	.086
14	.208	-.244	-.364	.181	-.121	.087	.070	-.043	.076
15	.163	-.172	-.165	-.183	-.029	-.100	.088	.649	-.039
16	.125	-.158	-.167	-.145	.016	-.056	.101	-.045	-.166
17	.071	-.156	-.054	-.029	.043	-.037	-.107	-.012	-.445
18	.208	-.154	-.078	.015	.062	-.008	-.066	-.066	-.361
19	.040	-.055	.072	.060	.060	.019	-.057	.715	-.420
20	.121	.055	.140	.081	-.062	.023	-.051	-.016	-.451
21	-.062	.254	.262	-.019	-.047	-.062	.520	.750	-.447
22	-.044	.332	.260	.006	.018	-.012	.010	.649	-.416
23	.040	.355	.211	.106	.096	.021	-.019	.029	-.367
24	.088	.309	.171	.164	.109	.054	.027	.074	-.123
25	.033	.064	.010	.153	.101	.069	.078	.039	.191
26	.081	.096	.033	.151	.103	.106	.575	.091	.027
				$\delta_r = 0°$					
1	-.060	-.131	-.095	-.130	-.096	-.125	-.115	-.118	.651
2	-.037	-.073	-.016	-.086	-.035	-.054	-.086	-.083	.178
3	.016	.046	.139	-.016	.071	-.019	-.047	-.054	-.165
4	.094	.109	.069	.010	.100	.031	-.022	-.019	-.386
5	.150	.123	.020	.086	.104	.043	-.008	.008	-.425
6	.173	.141	.089	.119	.114	.056	.022	.012	-.449
7	.146	-.161	-.109	.125	-.098	.064	.033	-.081	.029
8	.144	-.099	.040	-.107	-.020	-.107	.047	-.074	-.420
9	-.055	.060	.192	-.066	.084	-.043	-.104	-.039	-.363
10	-.053	.115	.290	-.012	.106	-.019	-.082	.000	-.443
11	.014	.147	.155	.049	.112	.037	-.047	.031	-.198
12	.086	.149	.109	.103	.112	.039	-.010	.078	-.090
13	.127	-.141	-.119	.128	-.104	.054	.012	-.099	.078
14	.148	-.081	-.121	.134	-.077	.064	.037	-.054	.076
15	.138	.036	.044	-.115	.002	-.086	.047	.651	-.084
16	.125	.095	.099	-.076	.059	-.049	.068	-.068	-.184
17	.133	.105	.167	.016	.081	-.023	-.092	-.037	-.463
18	.127	.127	.123	.072	.090	.008	-.067	-.070	-.380
19	.088	-.179	-.087	.105	.083	.035	-.041	.713	-.425
20	.070	-.109	-.113	.119	-.100	.037	-.033	-.023	-.457
21	-.047	.054	.034	-.105	-.073	-.078	.554	.754	-.451
22	-.072	.123	.071	-.074	-.002	-.045	-.020	.649	-.416
23	.051	.131	.081	.045	.069	-.008	-.061	.016	-.367
24	.082	.143	.111	.107	.096	.023	-.016	.074	-.135
25	.039	.069	.028	.125	.096	.045	.035	.041	.200
26	.076	.085	.032	.134	.100	.070	.595	.089	.022

TABLE 6

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	.232	-.314	-.314	-.204	-.078	-.008	.057	.146	.564
2	.197	-.328	-.336	-.206	-.045	.021	.089	.187	.437
3	.159	-.420	-.471	-.165	.039	.055	.108	.244	.105
4	.122	-.531	-.508	-.171	.078	.110	.146	.336	-.174
5	.105	-.596	-1.139	-.134	.106	.146	.186	.444	-.262
6	.078	-.649	-.801	-.074	.115	.175	.233	.623	-.323
7	.115	.178	.245	.007	.020	.209	.292	-.407	-.060
8	.069	.251	.341	.243	-.037	-.232	.347	-.558	-.385
9	.339	.406	.486	.243	-.095	-.291	-.350	-.625	-.307
10	.367	.209	.377	.243	-.586	-.323	-.388	-.759	.135
11	.367	.023	.096	.212	-.696	-.376	-.426	-.991	.105
12	.398	.067	.022	.058	-.490	-.179	-.458	-1.590	.015
13	.444	-.259	-.427	-.226	-.045	-.696	-.504	.358	.079
14	.367	-.291	-.464	-.206	-.046	-1.407	-.572	.552	.140
15	.327	-.435	-.360	-.137	.009	.106	-.572	-3.705	.062
16	.326	-.515	-.456	-.137	.058	.152	-1.983	-.828	.019
17	.026	-.847	-.453	-.085	.109	.205	.244	-1.203	-.007
18	.421	-.818	-.260	-.030	.139	.268	.333	.539	-.241
19	.098	.270	.247	.028	.117	.344	.443	-3.058	-.389
20	.496	.372	.306	.091	-.089	.407	.655	-1.164	-.450
21	.171	.586	.443	.134	-.111	.483	-3.553	-2.578	-.482
22	.425	.400	.360	.111	-.171	-.511	-.314	-5.328	-.505
23	.538	.038	-.058	.022	-.195	-.580	-.814	.560	-.538
24	-.614	.040	-.056	-.039	-.529	-.646	-1.028	-1.500	-.422
25	.513	.149	-.083	-.466	-1.071	-.753	-1.723	.401	-.150
26	-.286	-1.356	-.100	-.453	-.774	-.882	-4.705	-2.866	-.082
				$\delta_r = -30°$					
1	-.197	-.233	-.541	-.216	-.089	-.004	.049	.148	.559
2	-.263	-.282	-.599	-.267	-.053	.022	.062	.183	.430
3	-.331	-.468	-.791	-.173	.015	.056	.087	.242	.099
4	-.372	-.617	-1.050	-.212	.062	.110	.119	.329	-.171
5	-.357	-.538	-1.372	-.164	.091	.158	.162	.456	-.278
6	-.319	-.470	-1.432	-.109	.089	.182	.211	.606	-.333
7	-.274	.075	.225	-.004	-.070	.219	.266	-.479	-.072
8	-.325	.154	.282	.160	-.111	-.268	.319	-.627	-.399
9	-.064	.278	.434	.150	-.172	-.307	-.358	-.710	-.319
10	-.049	.150	.679	.141	-.753	-.331	-.396	-.862	.158
11	-.043	-.053	.286	.118	-.870	-.394	-.419	-1.263	.108
12	-.002	.004	.090	.011	-.625	-.162	-.460	-1.763	.027
13	.096	-.269	-.445	-.357	-.040	-.548	-.494	.367	.082
14	.013	-.297	-.522	-.297	-.038	-1.556	-.560	.554	.181
15	-.106	-.466	-.482	-.148	.002	.125	-.558	-4.113	.053
16	-.112	-.664	-.681	-.128	.055	.165	-1.834	-.890	.019
17	-.473	-.727	-.520	-.094	.089	.223	.228	-1.306	-.002
18	.021	-.684	-.430	-.047	.121	.271	.308	.558	-.247
19	-.473	.190	.236	.015	.102	.342	.419	-3.377	-.407
20	.110	.274	.286	.068	-.153	.411	.619	-1.263	-.443
21	-.314	.430	.399	.039	-.192	-.476	-3.234	-2.808	-.473
22	.011	.278	.236	.009	-.240	-.520	-.304	-5.721	-.513
23	.265	-.058	-.190	-.038	-.277	-.572	-.800	.548	-.525
24	-1.722	-.021	-.150	-.083	-.685	-.656	-.994	-1.588	-.420
25	.216	.156	-.083	-.594	-1.270	-.781	-1.645	.406	-.135
26	-1.081	-1.526	-.081	-.526	-.925	-.907	-4.196	-3.065	-.072
				$\delta_r = -20°$					
1	-.019	-.142	-1.002	-.245	-.115	-.004	.042	.155	.557
2	-.038	-.142	-1.172	-.422	-.071	.023	.062	.206	.410
3	-.036	-.220	-1.446	-.196	-.004	.039	.075	.238	.100
4	-.040	-.305	-1.519	-.213	.042	.113	.114	.357	-.183
5	-.068	-.310	-1.499	-.169	.071	.133	.160	.461	-.262
6	-.097	-.293	-1.021	-.084	.080	.173	.210	.612	-.329
7	-.205	.029	.179	.021	-.134	.211	.251	-.423	-.075
8	-.205	.082	.257	.067	-.172	-.289	.326	-.556	-.408
9	.004	.165	.476	.070	-.223	-.340	-.405	-.635	-.335
10	.004	.069	.901	.070	-.777	-.361	-.432	-.767	.141
11	.019	-.203	.322	.040	-1.092	-.429	-.461	-.977	.079
12	.042	-.115	.105	-.051	-.758	-.186	-.500	-1.565	.006
13	.074	-.368	-.587	-.523	-.080	-.466	-.542	.371	.091
14	-.027	-.312	-.657	-.426	-.071	-1.742	-.625	.544	.200
15	-.180	-.410	-.419	-.144	-.010	.120	-.604	-3.497	.027
16	-.139	-.500	-.519	-.137	.029	.158	-1.857	-.807	-.017
17	-.150	-.414	-.405	-.099	.084	.209	.228	-1.180	-.033
18	-.034	-.416	-.366	-.053	.113	.265	.307	.533	-.249
19	-.104	.094	.148	.017	.088	.344	.413	-2.905	-.428
20	.066	.169	.203	.078	-.204	.425	.625	-1.132	-.459
21	-.080	.276	.292	-.032	-.223	-.508	-3.527	-2.556	-.511
22	.008	.216	.084	-.048	-.281	-.551	-.315	-5.032	-.559
23	.254	-.222	-.349	-.097	-.305	-.588	-.824	.546	-.543
24	-1.843	-.134	-.220	-.127	-.626	-.690	-1.017	-1.456	-.441
25	.233	.142	-.068	-.740	-1.536	-.844	-1.653	.401	-.156
26	-1.065	-1.784	-.068	-.667	-1.073	-.945	-4.707	-2.868	-.085

TABLE 6 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 0°$					
1	.049	-.050	.023	-.026	.008	.028	.091	.177	.546
2	.042	-.050	.065	.002	.034	.058	.105	.226	.418
3	.021	-.050	.146	-.020	.095	.075	.118	.253	.090
4	.009	-.050	.106	.022	.114	.129	.150	.361	-.181
5	-.006	-.012	.242	.058	.114	.159	.190	.473	-.262
6	-.025	.029	.240	.095	.089	.183	.240	.595	-.337
7	-.188	-.064	-.092	.115	-.242	.183	.275	-.540	-.072
8	-.116	-.089	-.054	-.147	-.295	-.374	.327	-.719	-.395
9	.061	-.144	-.102	-.147	-.318	-.430	-.477	-.302	-.318
10	.044	-.272	-.269	-.181	-.761	-.447	-.514	-1.021	.154
11	-.011	-.689	-1.477	-.207	-1.788	-.510	-.518	-1.589	.128
12	-.036	-.697	-1.115	-.236	-1.140	-.234	-.547	-1.951	.058
13	-.106	-.049	-.085	-1.179	.008	-.391	-.627	.403	.164
14	-.265	-.035	-.071	-.814	.019	-2.413	-.712	.578	.181
15	-.430	-.035	-.015	-.006	.063	.135	-.695	-4.719	-.008
16	-.413	-.021	.002	-.002	.095	.163	-2.135	-1.000	-.036
17	-.087	.037	-.244	.039	.125	.228	.261	-1.418	-.047
18	-.252	.078	-.198	.069	.127	.280	.336	.574	-.247
19	-.013	-.122	-.106	.117	.087	.357	.445	-3.837	-.405
20	-.081	-.120	-.144	.117	-.307	.407	.634	-1.357	-.452
21	.015	-.163	-.158	-.196	-.335	.572	-2.695	-3.091	-.492
22	-.021	-.264	-.150	-.222	-.383	-.611	-.344	-5.977	-.505
23	.248	-.817	-.694	-.263	-.386	-.662	-.941	.553	-.529
24	-2.195	-.715	-.554	-.268	-.600	-.761	-1.196	-1.821	-.436
25	.229	.134	-.067	-1.086	-2.239	-.912	-2.139	.405	-.156
26	-1.091	-2.569	-.077	-1.115	-1.441	-1.043	-3.177	-3.445	-.081
				$\delta_r = 20°$					
1	.049	.140	.355	.204	.144	.082	.150	.227	.563
2	.049	.204	.407	.222	.157	.110	.171	.281	.449
3	.043	.266	.583	.141	.186	.116	.187	.303	.123
4	.045	.287	.827	.257	.182	.163	.218	.404	-.138
5	.074	.344	1.004	.249	.152	.191	.252	.502	-.229
6	.074	.365	.954	.235	.110	.211	.285	.624	-.304
7	-.056	-.165	-.778	.200	-.324	.195	.312	-.639	-.059
8	-.033	-.206	-1.115	-.394	-.357	-.520	.349	-.825	-.415
9	-.062	-.359	-1.548	-.416	-.410	-.550	-.518	-.924	-.338
10	-.082	-.751	-2.431	-.469	-.918	-.566	-.545	-1.359	.152
11	-.105	-1.439	-4.845	-.437	-2.233	-.645	-.568	-1.934	.117
12	-.165	-1.559	-4.556	-.433	-1.425	-.287	-.597	-2.034	.063
13	-.260	.278	.339	-1.920	.091	-.811	-.697	.456	.182
14	-.493	.353	.401	-1.404	.112	-2.888	-.792	.622	.158
15	-1.029	.396	.121	.190	.140	.185	-.761	-5.416	-.186
16	-.872	.443	.163	.212	.156	.201	-2.541	-1.082	-.099
17	.107	.489	.183	.239	.178	.259	.299	-1.594	-.099
18	-.584	.476	.052	.247	.159	.301	.376	.624	-.229
19	.130	-.414	-.514	.235	.089	.376	.484	-4.444	-.460
20	-.233	-.357	-.643	.208	-.370	.434	.678	-1.496	-.447
21	.097	-.553	-.815	-.347	-.397	-.705	-2.148	-3.576	-.516
22	-.117	-.986	-.790	-.361	-.448	-.739	-.356	-5.219	-.591
23	.231	-1.765	-1.742	-.420	-.469	-.779	-1.033	.552	-.508
24	-2.567	-1.932	-1.349	-.402	-.630	-1.020	-1.326	-2.191	-.441
25	.272	.183	-.093	-1.635	-2.611	-1.277	-2.360	.416	-.132
26	-1.528	-3.027	-.091	-1.729	-1.605	-1.424	-2.399	-3.637	-.067
				$\delta_r = 30°$					
1	.063	.250	.506	.341	.214	.134	.173	.261	.563
2	.081	.332	.556	.373	.216	.153	.173	.309	.455
3	.081	.384	.639	.240	.230	.153	.183	.342	.140
4	.081	.408	.803	.381	.230	.196	.220	.439	-.140
5	.087	.480	.948	.381	.196	.212	.255	.540	-.237
6	.079	.468	.871	.335	.117	.234	.282	.654	-.328
7	.014	-.435	-1.072	.273	-.420	.212	.307	-.613	-.069
8	.014	-.361	-1.793	-.463	-.481	-.527	.344	-.826	-.364
9	-.164	-.594	-2.514	-.495	-.487	-.564	-.539	-.930	-.330
10	-.218	-1.041	-3.869	-.551	-1.402	-.607	-.580	-1.485	.172
11	-.242	-1.402	-3.371	-.585	-2.360	-.637	-.593	-1.917	.162
12	-.345	-1.322	-2.215	-.563	-1.594	-.303	-.613	-2.006	.119
13	-.481	.439	.496	-1.806	.160	-.825	-.720	.470	.184
14	-.659	.518	.546	-1.413	.182	-2.884	-.835	.631	.125
15	-1.087	.565	.546	.251	.186	.196	-.798	-5.660	-.134
16	-1.030	.606	.574	.253	.194	.224	-2.572	-1.085	-.099
17	.192	.619	.474	.267	.214	.275	.304	-1.642	-.081
18	-.810	.586	.301	.269	.186	.330	.366	.650	-.235
19	.224	-.606	-.671	.248	.107	.407	.471	-4.725	-.407
20	-.420	-.509	-.918	.208	-.440	.456	.669	-1.497	-.437
21	.222	-.883	-1.191	-.443	-.457	-.686	-2.463	-3.727	-.476
22	-.271	-1.412	-1.179	-.447	-.505	-.709	-.393	-4.578	-.514
23	.248	-1.751	-1.404	-.503	-.549	-.778	-1.025	.571	-.530
24	-2.521	-1.849	-.932	-.475	-.992	-1.035	-1.294	-2.395	-.425
25	.291	.196	-.076	-1.585	-2.846	-1.273	-2.368	.427	-.150
26	-1.479	-3.117	-.096	-1.778	-1.796	-1.418	-2.755	-3.426	-.101

TABLE 6 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 40°$					
1	.004	.320	.549	.426	.256	.165	.188	.270	.568
2	.040	.434	.620	.453	.264	.183	.190	.311	.430
3	.040	.515	.702	.320	.273	.199	.208	.338	.123
4	.046	.566	.704	.484	.270	.237	.246	.434	-.170
5	.095	.623	.751	.469	.229	.259	.275	.520	-.268
6	.133	.602	.776	.424	.162	.265	.309	.646	-.348
7	.139	-.592	-.931	.355	-.371	.251	.363	-.574	-.100
8	.141	-.655	-1.169	-.436	-.412	-.480	.361	-.758	-.428
9	-.433	-.785	-.937	-.430	-.422	-.496	-.535	-.854	-.342
10	-.543	-.890	-1.100	-.450	-1.199	-.526	-.577	-1.273	.174
11	-.604	-.921	-1.100	-.450	-1.883	-.592	-.577	-1.838	.152
12	-.658	-.943	-1.014	-.450	-1.283	-.271	-.597	-1.951	.105
13	-.712	.570	.545	-1.250	.188	-.986	-.713	.463	.154
14	-.740	.659	.616	-1.064	.201	-2.635	-.814	.625	.098
15	-.799	.722	.716	.302	.223	.225	-.794	-5.297	-.176
16	-.793	.771	.759	.318	.240	.265	-2.619	-1.004	-.129
17	.314	.783	.663	.331	.240	.311	.317	-1.502	-.107
18	-.837	.718	.529	.326	.215	.353	.387	.625	-.262
19	.284	-.592	-.688	.298	.135	.424	.503	-4.320	-.436
20	-.736	-.785	-.829	.258	-.398	.468	.683	-1.400	-.471
21	.217	-.836	-.824	-.390	-.420	-.671	-2.174	-3.426	-.512
22	-.581	-.968	-.665	-.390	-.461	-.685	-.403	-4.813	-.547
23	.280	-.972	-.786	-.430	-.469	-.765	-1.038	.578	-.547
24	-2.398	-.972	-.533	-.413	-.861	-1.062	-1.337	-2.102	-.443
25	.306	.231	-.094	-1.426	-2.455	-1.319	-2.493	.455	-.152
26	-1.777	-2.665	-.094	-1.337	-1.559	-1.500	-2.391	-3.410	-.090

TABLE 7

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.233	-.287	-.429	-.200	-.088	-.024	.036	.152	.839
2	-.289	-.322	-.342	-.196	-.058	.006	.052	.189	.691
3	-.349	-.417	-.455	-.144	-.002	.026	.071	.226	.339
4	-.422	-.524	-.541	-.176	.036	.080	.101	.314	.024
5	-.464	-.654	-1.264	-.140	.034	.100	.129	.404	-.074
6	-.498	-.759	-.940	-.078	.034	.120	.177	.540	-.159
7	-.522	.223	.298	-.018	.034	.130	.202	-.365	-.042
8	-.524	.326	.364	.267	-.010	-.220	.244	-.499	-.215
9	.008	.391	.406	.267	-.074	-.261	-.317	-.563	-.147
10	.022	.524	.356	.267	-.337	-.269	-.363	-.690	.052
11	.002	.103	.169	.265	-.794	-.343	-.381	-.877	.006
12	.026	-.004	.243	.184	-.501	-.164	-.411	-1.427	-.012
13	.054	-.285	-.447	-.154	-.066	-.291	-.460	.345	.082
14	.143	-.300	-.475	-.202	-.052	-1.717	-.532	.519	.127
15	-.078	-.409	-.386	-.126	-.016	.102	-.548	-3.415	-.026
16	-.261	-.512	-.491	-.122	.016	.134	-1.339	-.752	-.014
17	-.594	-.907	-.477	-.088	.056	.178	.216	-1.107	.000
18	.331	-.844	-.239	-.042	.072	.224	.282	.538	-.074
19	-.448	.318	.292	-.002	.034	.289	.385	-2.823	-.189
20	.205	.425	.346	.032	-.094	.335	.571	-1.076	-.249
21	-.329	.466	.384	.140	-.108	-.453	-3.036	-2.415	-.295
22	.133	.682	.435	.132	-.156	-.485	-.296	-4.922	-.329
23	.161	.285	.123	.098	-.198	-.541	-.766	.472	-.367
24	-1.610	.117	.050	.028	-.341	-.601	-.956	-1.326	-.233
25	.155	.093	-.050	-.323	-1.176	-.731	-1.639	.327	.062
26	-.584	-1.482	-.050	-.449	-.828	-.878	-3.748	-2.665	-.062
				$\delta_r = -30°$					
1	-.210	-.260	-.545	-.194	-.073	-.030	.047	.150	.830
2	-.275	-.304	-.569	-.190	-.052	.008	.059	.195	.686
3	-.335	-.418	-.675	-.148	.004	.022	.074	.216	.328
4	-.403	-.618	-.902	-.190	.036	.062	.105	.304	.016
5	-.439	-.582	-1.379	-.154	.036	.099	.137	.409	-.081
6	-.415	-.568	-1.323	-.090	.022	.115	.174	.546	-.160
7	-.349	.110	.259	-.032	-.050	.113	.217	-.404	-.059
8	-.397	.196	.305	.198	-.083	-.276	.254	-.550	-.223
9	-.038	.264	.381	.196	-.135	-.310	-.348	-.618	-.166
10	-.028	.360	.609	.196	-.357	-.325	-.391	-.764	.020
11	-.050	-.056	.647	.190	-.942	-.401	-.406	-.994	-.002
12	-.018	-.106	.457	.110	-.605	-.185	-.424	-1.561	-.022
13	.028	-.302	-.459	-.234	-.069	-.349	-.488	.357	.085
14	.124	-.298	-.493	-.277	-.052	-1.942	-.566	.515	.134
15	-.134	-.428	-.437	-.126	-.014	.101	-.564	-3.712	-.059
16	-.261	-.614	-.635	-.116	.020	.131	-1.436	-.799	-.042
17	-.605	-.704	-.515	-.098	.054	.179	.207	-1.173	-.028
18	.214	-.674	-.435	-.054	.054	.230	.285	.536	-.095
19	-.453	.234	.265	-.012	.022	.292	.396	-3.045	-.208
20	.104	.322	.295	.028	-.129	.339	.580	-1.129	-.271
21	-.303	.372	.359	.062	-.151	-.488	-2.949	-2.546	-.308
22	.040	.516	.407	.056	-.194	-.524	-.297	-5.312	-.348
23	.168	.072	-.042	.020	-.232	-.573	-.809	.480	-.375
24	-1.739	-.036	-.116	-.024	-.341	-.683	-.996	-1.417	-.251
25	.162	.094	-.066	-.323	-1.317	-.819	-1.730	.333	.063
26	-.631	-1.668	-.064	-.537	-.931	-.962	-3.396	-2.815	-.061
				$\delta_r = -20°$					
1	-.012	-.133	-.983	-.236	-.086	-.029	.043	.141	.827
2	-.042	-.135	-1.135	-.327	-.067	.008	.050	.182	.683
3	-.062	-.210	-1.373	-.186	-.010	.021	.076	.211	.335
4	-.072	-.306	-1.390	-.234	.020	.065	.101	.293	.012
5	-.100	-.321	-1.512	-.182	.020	.090	.134	.403	-.093
6	-.116	-.321	-.998	-.101	.020	.107	.172	.539	-.169
7	-.198	.081	.243	-.042	-.086	.107	.202	-.424	-.048
8	-.262	.131	.303	.083	-.112	-.268	.244	-.583	-.232
9	.024	.177	.355	.085	-.168	-.312	-.370	-.657	-.171
10	.030	.244	.681	.085	-.370	-.330	-.401	-.802	.042
11	.016	-.196	.587	.071	-1.057	-.393	-.424	-1.109	-.004
12	.026	-.185	.413	.006	-.628	-.169	-.446	-1.641	-.028
13	.046	-.387	-.552	-.424	-.070	-.257	-.496	.364	.089
14	.108	-.310	-.629	-.422	-.047	-2.038	-.547	.533	.139
15	-.254	-.397	-.365	-.154	-.018	.084	-.564	-3.961	-.077
16	-.328	-.480	-.473	-.152	.014	.117	-1.277	-.828	-.040
17	-.182	-.480	-.417	-.113	.047	.169	.215	-1.229	-.030
18	.130	-.417	-.340	-.077	.049	.216	.279	.531	-.095
19	-.120	.143	.214	-.020	.016	.280	.374	-3.260	-.224
20	.076	.222	.243	.010	-.159	.318	.554	-1.176	-.278
21	-.068	.264	.263	-.024	-.182	-.475	-3.360	-2.789	-.325
22	.056	.355	.228	-.028	-.229	-.508	-.285	-5.481	-.355
23	.142	-.103	-.245	-.067	-.266	-.573	-.764	.469	-.377
24	-1.862	-.143	-.174	-.115	-.331	-.611	-.946	-1.479	-.266
25	.150	.083	-.039	-.485	-1.448	-.728	-1.548	.337	.056
26	-.650	-1.931	-.039	-.729	-.986	-.898	-4.345	-2.907	-.058

TABLE 7 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 0°$					
1	.103	.008	.064	-.002	.030	.042	.110	.167	.826
2	.063	.008	.103	.012	.048	.064	.108	.203	.697
3	.042	.008	.162	-.004	.072	.071	.129	.239	.339
4	.020	-.010	.111	.016	.085	.102	.157	.326	.022
5	.018	-.002	.238	.041	.066	.123	.180	.421	-.082
6	.012	.028	.269	.057	.020	.139	.211	.533	-.158
7	-.150	-.020	.006	.057	-.233	.123	.237	-.521	-.034
8	-.117	-.036	-.035	-.115	-.243	-.372	.258	-.692	-.220
9	.103	-.074	-.082	-.127	-.314	-.410	-.474	-.771	-.164
10	.061	-.195	-.185	-.135	-.596	-.422	-.491	-.974	.062
11	.030	-.692	-1.316	-.172	-1.690	-.501	-.505	-1.545	.034
12	-.002	-.668	-1.222	-.207	-1.022	-.227	-.505	-1.909	.022
13	-.051	.002	-.066	-.778	.012	-.520	-.607	.378	.154
14	.10	.008	-.055	-.869	.034	-2.576	-.724	.547	.078
15	-.489	.008	.006	.002	.066	.137	-.718	-4.676	-.144
16	-.293	.010	.006	.014	.082	.166	-2.025	-.958	-.096
17	-.046	.034	-.248	.033	.095	.200	.272	-1.372	-.060
18	-.129	.066	-.240	.049	.078	.239	.333	.555	-.096
19	.026	-.068	-.086	.060	.004	.293	.432	-3.761	-.214
20	-.042	-.066	-.109	.058	-.274	.343	.609	-1.308	-.263
21	.044	-.111	-.121	-.179	-.292	-.574	-2.311	-3.036	-.317
22	.014	-.217	-.121	-.193	-.342	-.605	-.331	-6.054	-.359
23	.141	-.763	-.441	-.230	-.390	-.636	-.953	.467	-.375
24	-2.115	-.724	-.452	-.248	-.475	-.794	-1.194	-1.857	-.255
25	.166	.089	-.037	-.667	-2.103	-1.000	-2.294	.318	.042
26	-.788	-2.479	-.039	-1.248	-1.296	-1.206	-2.429	-3.199	-.042
				$\delta_r = 20°$					
1	.113	.206	.398	.233	.150	.107	.152	.234	.850
2	.105	.257	.457	.267	.160	.117	.160	.271	.692
3	.095	.288	.588	.176	.160	.127	.175	.305	.339
4	.089	.294	.843	.279	.135	.146	.193	.383	.041
5	.099	.319	.954	.263	.072	.154	.212	.463	-.066
6	.097	.294	.779	.206	-.006	.154	.242	.559	-.150
7	-.032	-.126	-.811	.125	-.355	.113	.263	-.582	-.039
8	-.069	-.140	-1.046	-.352	-.386	-.473	.263	-.754	-.203
9	.000	-.284	-1.394	-.379	-.458	-.490	-.532	-.844	-.136
10	-.071	-.615	-2.219	-.403	-.899	-.508	-.548	-1.199	.092
11	-.069	-1.317	-4.497	-.455	-2.150	-.602	-.548	-1.859	.090
12	-.103	-1.339	-2.909	-.492	-1.339	-.271	-.548	-2.057	.088
13	-.183	.325	.376	-1.372	.113	-.752	-.669	.432	.205
14	-.341	.395	.451	-1.593	.119	-2.736	-.762	.602	-.131
15	-.990	.426	.402	.172	.140	.193	-.788	-5.516	-.189
16	-.829	.449	.417	.174	.140	.205	-2.476	-1.016	-.121
17	.117	.449	.193	.184	.129	.246	.302	-1.516	-.068
18	-.419	.399	.002	.174	.084	.283	.370	.621	-.090
19	.179	-.385	-.469	.140	-.021	.328	.460	-4.373	-.185
20	-.167	-.288	-.590	.085	-.398	.361	.628	-1.424	-.251
21	.169	-.510	-.755	-.344	-.409	-.646	-2.347	-3.398	-.287
22	-.091	-.922	-.759	-.370	-.448	-.668	-.349	-5.537	-.316
23	.135	-1.673	-1.473	-.419	-.497	-.693	-1.008	.475	-.357
24	-2.335	-1.949	-1.082	-.443	-.721	-.953	-1.250	-2.471	-.238
25	.196	.089	-.052	-1.051	-2.489	-1.203	-2.532	.334	.080
26	-1.163	-2.780	-.052	-1.773	-1.567	-1.512	-2.409	-3.320	-.045
				$\delta_r = 30°$					
1	.141	.325	.542	.343	.204		.171	.256	.821
2	.141	.399	.585	.376	.208		.185	.292	.687
3	.119	.432	.635	.263	.192		.195	.313	.327
4	.121	.434	.768	.392	.157		.213	.388	.026
5	.129	.430	.878	.357	.077		.233	.465	-.069
6	.129	.372	.788	.283	-.012		.259	.560	-.157
7	.016	-.358	-1.043	.189	-.429		.275	-.594	-.062
8	-.061	-.305	-1.525	-.446	-.446		.275	-.788	-.222
9	-.147	-.523	-2.163	-.478	-.506		-.560	-.871	-.143
10	-.182	-1.047	-3.330	-.516	-1.052		-.582	-1.269	.095
11	-.237	-1.654	-2.519	-.556	-2.302		-.582	-1.921	.093
12	-.297	-1.638	-1.825	-.558	-1.450		-.582	-2.102	.103
13	-.429	.484	.519	-1.349	.175		-.691	.446	.212
14	-.593	.562	.585	-1.560	.171		-.793	.608	-.212
15	-1.738	.607	.585	.249	.171		-.831	-5.638	-.244
16	-1.184	.607	.607	.249	.169		-2.620	-1.029	-.153
17	.221	.591	.446	.263	.145		.317	-1.554	-.097
18	-.779	.482	.226	.235	.097		.378	.617	-.099
19	.272	-.514	-.637	.177	-.038		.470	-4.529	-.208
20	-.364	-.444	-.841	.120	-.452		.639	-1.429	-.268
21	.256	-.790	-1.084	-.418	-.454		-2.376	-3.573	-.308
22	-.215	-1.352	-1.124	-.434	-.500		-.375	-5.165	-.333
23	.168	-1.875	-1.161	-.488	-.528		-1.028	.483	-.365
24	-2.301	-1.796	-.735	-.488	-.863		-1.285	-2.577	-.250
25	.227	.111	-.051	-1.122	-2.639		-2.528	.337	.062
26	-1.665	-2.796	-.051	-1.857	-1.675		-2.424	-3.271	-.073

TABLE 7 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 40°$					
1	.127	.394	.593	.447	.255	.168	.202	.269	.842
2	.125	.487	.654	.491	.255	.175	.207	.299	.699
3	.077	.542	.692	.358	.238	.175	.225	.318	.339
4	.063	.563	.650	.497	.204	.189	.240	.401	.033
5	.090	.575	.624	.461	.131	.189	.260	.473	-.058
6	.108	.517	.624	.383	.046	.191	.289	.559	-.143
7	.100	-.586	-.863	.260	-.387	.146	.297	-.565	-.067
8	.067	-.596	-1.051	-.430	-.400	-.476	.297	-.733	-.200
9	-.346	-.769	-.911	-.445	-.442	-.495	-.548	-.825	-.129
10	-.535	-.812	-.884	-.461	-.949	-.495	-.579	-1.107	.106
11	-.644	-.847	-.888	-.476	-1.935	-.576	-.579	-1.876	.104
12	-.731	-.870	-.821	-.476	-1.223	-.276	-.585	-2.043	.112
13	-.812	.614	.584	-1.160	.198	-.834	-.680	.437	.197
14	-.825	.703	.644	-1.154	.198	-2.728	-.791	.588	-.222
15	-.956	.738	.719	.329	.211	.227	-.950	-5.363	-.222
16	-.854	.771	.749	.329	.202	.249	-2.853	-.987	-.139
17	.302	.728	.610	.328	.179	.281	.345	-1.467	-.083
18	-.950	.629	.432	.303	.131	.314	.411	.601	-.092
19	.319	-.522	-.648	.245	.023	.366	.498	-4.230	-.193
20	-.771	-.672	-.772	.164	-.402	.393	.657	-1.360	-.260
21	.283	-.775	-.772	-.407	-.417	-.653	-2.624	-3.390	-.299
22	-.596	-.794	-.582	-.407	-.448	-.672	-.386	-5.710	-.324
23	.163	-.837	-.624	-.430	-.470	-.699	-1.070	.465	-.356
24	-2.288	-.845	-.384	-.441	-.810	-.921	-1.329		
25	.238	.140	-.065	-1.129	-2.370	-1.183	-2.607	.333	.067
26	-1.352	-2.584	-.067	-1.453	-1.497	-1.566	-2.506	-3.235	-.079

TABLE 8

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.274	-.249	-.309	-.139	-.021	.023	.079	-2.476	-.235
2	-.225	-.247	-.299	-.139	-.004	.041	.097	.167	.932
3	-.268	-.338	-.373	-.116	.029	.044	.097	.194	.768
4	-.317	-.429	-.456	-.116	.045	.068	.118	.209	.397
5	-.364	-.522	-.977	-.098	.037	.089	.141	.279	.082
6	-.425	-.621	-.734	-.040	.021	.093	.163	.361	-.018
7	-.517	.291	.247	.006	.097	.075	.178	.449	-.103
8	-.492	.416	.382	.177	.068	-.058	.205	-.266	-.066
9	.098	.470	.415	.301	-.002	-.135	-.172	-.382	-.165
10	.100	.495	.311	.322	-.099	-.161	-.219	-.447	-.109
11	.083	.600	.044	.322	-.522	-.219	-.252	-.574	-.076
12	.085	.342	-.046	.295	-.452	-.132	-.279	-.776	-.105
13	.096	-.212	-.382	.137	-.016	-.222	-.322	-1.342	-.082
14	.123	-.212	-.419	-.050	.006	-1.720	-.382	.344	.056
15	.215	-.334	-.303	-.071	.023	.133	-.438	.489	.099
16	.119	-.421	-.405	-.062	.043	.153	-.744	-3.108	.047
17	-.492	-.689	-.369	-.042	.043	.178	.231	-.591	.016
18	.334	-.674	-.145	-.019	.043	.211	.295	-.939	-.008
19	-.334	.390	.197	.015	.004	.259	.368	.506	-.014
20	.270	.499	.347	.033	.033	.286	.523	-2.494	-.105
21	-.272	.505	.388	.125	.000	-.284	-2.946	-.875	-.195
22	.211	.546	.388	.150	-.051	-.317	-.223	-1.947	-.235
23	.108	.715	.266	.150	-.101	-.395	-.579	-4.551	-.274
24	-1.508	.480	.110	.108	-.156	-.445	-.733	.384	-.304
25	.143	.060	-.069	-.042	-.813	-.559	-1.260	-1.228	-.171
26	-.338	-1.113	-.071	-.312	-.784	-.743	-3.748	.241	.138
				$\delta_r = -30°$				-2.266	-.062
1	-.159	-.319	-.494	-.133	-.010	.031	.099	.159	.931
2	-.226	-.283	-.446	-.133	.008	.049	.109	.195	.747
3	-.269	-.292	-.486	-.116	.029	.049	.107	.215	.385
4	-.312	-.417	-.537	-.118	.031	.071	.130	.282	.082
5	-.363	-.548	-1.025	-.098	.027	.077	.147	.360	-.011
6	-.426	-.581	-1.124	-.060	.008	.077	.170	.462	-.094
7	-.464	.198	.216	-.018	.050	.077	.189	-.294	-.044
8	-.448	.262	.357	.116	.015	-.092	.208	-.410	-.155
9	.096	.313	.398	.195	-.044	-.161	-.158	-.472	-.107
10	.047	.363	.382	.225	-.183	-.200	-.219	-.602	-.059
11	.002	.412	.332	.227	-.629	-.261	-.242	-.805	-.096
12	-.002	.113	.330	.199	-.513	-.149	-.293	-1.344	-.065
13	.012	-.275	-.355	.002	.010	-.275	-.310	.331	.079
14	.047	-.225	-.380	-.187	.004	-1.823	-.368	.487	.107
15	.145	-.290	-.307	-.068	.023	.134	-.417	-3.052	.036
16	-.061	-.415	-.431	-.060	.044	.155	-.716	-.605	.000
17	-.483	-.596	-.355	-.048	.046	.179	.232	-.959	-.013
18	.206	-.627	-.317	-.026	.042	.210	.299	.491	-.013
19	-.322	.231	.216	.004	-.008	.263	.366	-2.456	-.115
20	.139	.406	.353	.016	.000	.277	.520	-.890	-.182
21	-.303	.427	.380	.088	-.035	-.308	-2.851	-2.079	-.234
22	.116	.465	.380	.088	-.100	-.361	-.194	-4.453	-.280
23	.088	.519	.251	.078	-.144	-.424	-.549	.387	-.295
24	-1.680	.235	.050	.030	-.215	-.475	-.707	-1.242	-.165
25	.130	.058	-.068	-.131	-.948	-.605	-1.213	.236	.148
26	-.399	-1.298	-.064	-.416	-.840	-.794	-3.611	-2.302	-.069
				$\delta_r = -20°$					
1	.095	-.073	-.859	-.155	-.040	.031	.094	.175	.937
2	.068	-.054	-1.064	-.357	-.020	.043	.109	.212	.759
3	.027	-.114	-1.273	-.151	.004	.050	.107	.219	.402
4	.000	-.237	-1.225	-.167	.014	.072	.121	.292	.084
5	-.025	-.253	-1.514	-.139	-.010	.074	.134	.369	-.022
6	-.070	-.293	-1.072	-.097	-.030	.074	.165	.462	-.104
7	-.070	.160	.203	-.034	.010	.074	.184	-.285	-.057
8	-.165	.193	.361	.097	-.040	-.128	.199	-.412	-.163
9	.148	.241	.398	.143	-.118	-.192	-.205	-.475	-.116
10	.128	.272	.422	.143	-.232	-.225	-.257	-.610	-.080
11	.091	.249	.614	.145	-.715	-.285	-.280	-.838	-.110
12	.091	-.066	.594	.121	-.615	-.159	-.316	-1.387	-.071
13	.091	-.236	-.436	-.069	-.020	-.277	-.356	.340	.086
14	.115	-.236	-.538	-.268	-.006	-1.895	-.414	.492	.100
15	.113	-.293	-.313	-.085	.010	.136	-.460	-3.225	.025
16	-.183	-.376	-.424	-.085	.024	.157	-.789	-.608	-.008
17	-.119	-.394	-.422	-.067	.024	.186	.238	-.963	-.024
18	.163	-.394	-.333	-.040	.020	.211	.295	.494	-.022
19	-.049	.174	.159	-.006	-.046	.250	.375	-2.573	-.129
20	.132	.286	.283	.010	-.046	.285	.523	-.894	-.208
21	.029	.326	.335	.052	-.090	-.339	-3.176	-2.215	-.251
22	.125	.355	.285	.054	-.148	-.376	-.209	-4.713	-.282
23	.070	.342	.110	.026	-.178	-.442	-.582	.373	-.316
24	-1.663	.035	-.062	-.022	-.238	-.483	-.751	-1.344	-.184
25	.115	.035	-.062	-.157	-1.032	-.632	-1.291	.240	.127
26	-.440	-1.396	-.058	-.466	-.944	-.806	-4.025	-2.377	-.063

TABLE 8 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.115	.027	-.226	-.049	.018	.063	.117		.920
2	.109	-.010	-.343	-.130	.025	.080	.131		.759
3	.086	-.055	-.522	-.077	.041	.082	.137		.406
4	.064	-.088	-.679	-.067	.041	.096	.146		.094
5	.055	-.107	-.766	-.051	.020	.106	.162		-.020
6	.029	-.099	-.459	-.028	-.027	.110	.185		-.098
7	-.043	.101	.148	.020	-.043	.075	.194		-.035
8	-.080	.105	.301	.063	-.090	-.180	.204		-.157
9	.135	.125	.321	.079	-.164	-.249	-.237		-.114
10	.142	.115	.380	.061	-.297	-.269	-.279		-.071
11	.113	.010	.461	.055	-.885	-.331	-.306		-.094
12	.107	-.226	.213	.002	-.716	-.165	-.348		-.053
13	.092	-.053	-.215	-.209	.023	-.394	-.375		.135
14	.088	-.097	-.260	-.437	.031	-2.027	-.437		.098
15	-.039	-.156	-.156	-.010	.053	.176	-.488		.004
16	-.312	-.197	-.207	-.008	.059	.198	-.848		-.022
17	-.010	-.187	-.142	.010	.055	.225	.265		-.037
18	.072	-.146	-.157	.018	.037	.253	.327		-.020
19	.035	.109	.094	.037	-.037	.282	.400		-.124
20	.090	.144	.154	.037	-.092	.310	.546		-.188
21	.072	.172	.167	.022	-.119	.380	-3.281		-.245
22	.101	.177	.106	.000	-.184	-.420	-.206		-.294
23	.084	.066	-.102	-.041	-.219	-.486	-.619		-.302
24	-1.801	-.173	-.177	-.098	-.280	-.529	-.790		-.173
25	.127	.051	-.030	-.252	-1.205	-.733	-1.335		.133
26	-.452	-1.524	-.030	-.614	-1.029	-.984	-4.090		-.037
				$\delta_r = 0°$					
1	.109		.219	.048	.069	.074	.128	.198	.931
2	.105		.221	.079	.080	.086	.141	.235	.780
3	.094		.197	.029	.078	.098	.147	.247	.419
4	.076		.145	.058	.063	.100	.159	.320	.100
5	.084		.176	.058	.029	.105	.172	.390	-.012
6	.066		.162	.056	-.031	.105	.191	.476	-.089
7	-.033		.054	.041	-.096	.061	.201	-.363	-.028
8	-.049		.074	-.012	-.147	-.252	.207	-.515	-.154
9	.119		.012	-.025	-.226	-.309	-.293	-.600	-.100
10	.107		-.101	-.058	-.380	-.322	-.342	-.759	-.043
11	.101		-.652	-.079	-1.075	-.396	-.369	-1.132	-.041
12	.092		-.816	-.143	-.841	-.193	-.402	-1.755	-.006
13	.051		-.002	-.348	.065	-.492	-.426	.386	.173
14	.014		.010	-.642	.069	-2.211	-.511	.530	.094
15	-.179		.066	.068	.086	.180	-.562	-3.998	.020
16	-.285		.060	.074	.082	.193	-1.270	-.713	-.024
17	.023		-.147	.074	.075	.219	.277	-1.113	-.035
18	-.023		-.157	.074	.040	.248	.338	.534	-.022
19	.092		.017	.066	-.050	.295	.428	-3.155	-.100
20	.060		.000	.039	-.147	.307	.564	-1.027	-.179
21	.107		-.025	-.048	-.174	-.443	-3.004	-2.515	-.224
22	.090		-.062	-.074	-.233	-.484	-.233	-5.829	-.254
23	.076		-.137	-.120	-.272	-.547	-.700	.375	-.297
24	-1.825		-.337	-.168	-.356	-.588	-.887	-1.806	-.165
25	.140		-.021	-.358	-1.403	-.830	-1.583	.239	.140
26	-.589		-.025	-.805	-1.117	-1.145	-3.184	-2.821	-.028
				$\delta_r = 10°$					
1	.127	.151	.352	.162	.118	.123	.161	.255	.915
2	.116	.173	.387	.209	.137	.130	.182	.286	.754
3	.100	.181	.511	.125	.112	.123	.180	.297	.392
4	.094	.171	.613	.191	.087	.125	.190	.369	.085
5	.106	.171	.694	.168	.031	.126	.197	.432	-.026
6	.104	.150	.530	.123	-.035	.119	.211	.504	-.102
7	-.008	.008	-.137	.051	-.170	.062	.224	-.384	-.039
8	-.033	.002	-.313	-.117	-.225	-.280	.207	-.554	-.173
9	.092	-.089	-.516	-.152	-.293	-.352	-.344	-.649	-.118
10	.043	-.276	-.832	-.178	-.472	-.364	-.397	-.819	-.051
11	.045	-.633	-2.110	-.217	-1.225	-.418	-.426	-1.347	-.065
12	.045	-.711	-2.652	-.305	-.965	-.206	-.449	-2.054	-.024
13	.006	.216	.209	-.568	.079	-.566	-.464	.423	.179
14	-.069	.258	.267	-.914	.091	-2.257	-.571	.569	.079
15	-.363	.260	.261	.143	.121	.212	-.625	-4.625	-.073
16	-.414	.260	.263	.162	.112	.228	-1.956	-.757	-.073
17	.088	.260	.008	.152	.085	.247	.313	-1.189	-.077
18	-.127	.217	-.097	.133	.040	.274	.377	.583	-.031
19	.161	-.039	-.122	.096	-.052	.311	.453	-3.585	-.157
20	.014	-.068	-.207	.039	-.206	.319	.582	-1.085	-.205
21	.165	-.210	-.302	-.135	-.225	-.453	-3.052	-2.857	-.274
22	.043	-.410	-.280	-.164	-.289	-.506	-.257	-6.463	-.346
23	.071	-.800	-.530	-.225	-.329	-.570	-.774	.405	-.305
24	-1.794	-.936	-.756	-.281	-.420	-.591	-.990	-2.338	-.205
25	.161	.045	-.027	-.521	-1.553	-.852	-1.826	.263	.136
26	-.910	-1.897	-.017	-1.018	-1.233	-1.276	-2.807	-2.886	-.026

TABLE 8 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9^\circ$; $\alpha = 0^\circ$; $\delta_e = 0^\circ$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20^\circ$					
1	.173	.236	.409	.253	.184	.160	.200	.262	.914
2	.163	.302	.488	.316	.190	.160	.215	.289	.752
3	.123	.319	.589	.201	.167	.161	.213	.299	.393
4	.103	.311	.736	.290	.122	.156	.221	.360	.081
5	.121	.304	.853	.251	.031	.148	.226	.428	-.028
6	.111	.251	.649	.181	-.052	.130	.234	.501	-.106
7	.008	-.106	-.365	.074	-.225	.054	.234	-.410	-.045
8	-.049	-.101	-.728	-.214	-.289	-.323	.219	-.566	-.163
9	.033	-.180	-1.085	-.269	-.359	-.374	-.395	-.659	-.106
10	-.049	-.389	-1.612	-.310	-.614	-.395	-.440	-.834	-.039
11	-.049	-.836	-3.566	-.355	-1.496	-.459	-.457	-1.393	-.039
12	-.088	-.896	-4.502	-.454	-1.116	-.218	-.480	-2.029	.029
13	-.140	.360	.403	-.782	.155	-.578	-.522	.418	.191
14	-.218	.439	.481	-1.191	.165	-2.381	-.595	.561	.073
15	-.846	.451	.413	.201	.172	.230	-.758	-4.636	-.049
16	-.574	.453	.421	.216	.151	.243	-2.438	-.784	-.075
17	.156	.426	.210	.212	.103	.261	.338	-1.200	-.069
18	-.263	.342	-.006	.177	.048	.284	.393	.576	-.033
19	.218	-.162	-.259	.111	-.066	.313	.474	-3.586	-.128
20	-.109	-.143	-.394	.039	-.254	.315	.595	-1.100	-.196
21	.237	-.323	-.558	-.216	-.281	-.482	-3.407	-3.017	-.248
22	-.064	-.636	-.583	-.255	-.339	-.521	-.296	-6.522	-.285
23	.062	-1.145	-.959	-.312	-.380	-.584	-.868	.401	-.303
24	-1.914	-1.232	-1.143	-.372	-.531	-.626	-1.125	-2.339	-.175
25	.163	.052	-.035	-.657	-1.851	-.891	-2.219	.245	.141
26	-1.016	-2.062	-.033	-1.211	-1.314	-1.321	-2.875	-2.981	-.041
				$\delta_r = 30^\circ$					
1	.180	.342	.556	.366	.241	.196	.218	.267	.922
2	.205	.450	.624	.434	.249	.196	.236	.302	.764
3	.161	.458	.647	.294	.206	.200	.236	.306	.413
4	.135	.450	.672	.412	.139	.186	.232	.375	.099
5	.157	.414	.701	.366	.044	.171	.239	.429	-.010
6	.128	.322	.593	.276	-.044	.153	.247	.498	-.097
7	.012	-.254	-.558	.134	-.264	.065	.245	-.440	-.052
8	-.093	-.268	-1.071	-.278	-.322	-.345	.220	-.604	-.153
9	-.193	-.553	-1.392	-.350	-.393	-.402	-.425	-.706	-.091
10	-.182	-.926	-1.705	-.377	-.674	-.420	-.467	-.879	-.008
11	-.236	-1.078	-2.112	-.409	-1.607	-.480	-.490	-1.448	-.006
12	-.323	-1.083	-1.351	-.469	-1.197	-.235	-.510	-2.252	.064
13	-.482	.507	.546	-.821	.204	-.855	-.535	.427	.198
14	-.708	.614	.624	-1.191	.210	-2.269	-.602	.573	.062
15	-1.656	.639	.608	.298	.206	.267	-.737	-4.925	-.048
16	-1.023	.633	.612	.311	.177	.280	-2.585	-.808	-.079
17	.234	.561	.436	.296	.121	.292	.355	-1.260	-.076
18	-.832	.447	.236	.255	.058	.312	.411	.569	-.033
19	.304	-.301	-.403	.173	-.064	.343	.485	-3.806	-.112
20	-.381	-.322	-.616	.068	-.283	.337	.604	-1.148	-.182
21	.317	-.701	-.776	-.259	-.306	-.514	-3.757	-3.188	-.234
22	-.238	-1.004	-.718	-.302	-.360	-.565	-.311	-6.935	-.264
23	.068	-1.089	-.780	-.350	-.397	-.610	-.878	.396	-.295
24	-2.004	-1.243	-.500	-.391	-.584	-.704	-1.131	-2.544	-.165
25	.178	.058	-.042	-.730	-1.963	-.994	-2.210	.252	.145
26	-1.079	-2.280	-.042	-1.296	-1.362	-1.849	-3.120	-3.079	-.045
				$\delta_r = 40^\circ$					
1	.248	.433	.610	.462	.285	.216	.234	.293	.905
2	.273	.565	.673	.526	.291	.218	.253	.329	.768
3	.191	.571	.692	.366	.245	.212	.247	.331	.414
4	.136	.574	.612	.522	.172	.197	.253	.389	.093
5	.152	.542	.467	.470	.080	.185	.253	.451	-.018
6	.144	.455	.369	.357	-.011	.166	.262	.514	-.101
7	.113	-.602	-.633	.207	-.274	.073	.257	-.426	-.068
8	.047	-.584	-.941	-.318	-.316	-.349	.209	-.584	-.158
9	-.259	-.636	-.673	-.351	-.364	-.405	-.408	-.682	-.099
10	-.347	-.708	-.784	-.372	-.607	-.411	-.450	-.855	-.010
11	-.571	-.712	-.841	-.386	-1.506	-.463	-.477	-1.486	.006
12	-.632	-.700	-.639	-.409	-1.148	-.230	-.477	-2.200	.076
13	-.669	.623	.600	-.766	.232	-.724	-.525	.449	.173
14	-.704	.741	.671	-1.049	.243	-2.363	-.592	.580	.035
15	-1.189	.760	.734	.361	.243	.270	-.638	-4.840	-.062
16	-.684	.752	.742	.384	.209	.290	-2.331	-.790	-.089
17	.345	.696	.511	.363	.155	.293	.364	-1.231	-.084
18	-.772	.574	.348	.320	.088	.313	.423	.586	-.031
19	.382	-.466	-.493	.228	-.034	.338	.494	-3.738	-.109
20	-.667	-.516	-.663	.125	-.287	.334	.609	-1.121	-.185
21	.413	-.627	-.642	-.283	-.307	-.512	-3.280	-3.160	-.235
22	-.581	-.681	-.489	-.314	-.354	-.562	-.280	-6.815	-.265
23	.084	-.723	-.455	-.337	-.385	-.606	-.828	.408	-.305
24	-1.893	-.691	-.262	-.372	-.523	-.660	-1.063	-2.580	-.183

TABLE 9

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.252	-.254	-.427	-.124	-.010	.038	.063	.086	.839
2	-.266	-.271	-.431	-.059	.080	.146	.144	.215	.700
3	-.287	-.305	-.345	-.061	.082	.134	.177	.264	.346
4	-.302	-.355	-.367	-.050	.087	.130	.179	.328	.031
5	-.321	-.466	-.710	-.034	.070	.132	.177	.375	-.082
6	-.342	-.559	-.551	.002	.055	.123	.188	.427	-.161
7	-.499	.532	.440	.046	.137	.089	.188	-.121	-.086
8	-.490	.374	.391	.267	.084	.006	.188	-.178	-.235
9	.239	.263	.270	.223	.082	-.030	-.036	-.234	-.207
10	.131	.303	.242	.194	-.027	-.030	-.075	-.351	-.252
11	.049	.529	.204	.194	-.165	-.091	-.069	-.557	-.224
12	.046	.517	.116	.211	-.200	-.095	-.107	-1.257	-.149
13	.059	-.239	-.380	.162	.006	-.206	-.163	.142	.010
14	.080	-.250	-.380	.097	.089	-1.079	-.198	.379	.080
15	.131	-.286	-.243	-.038	.110	.187	-.284	-1.962	-.063
16	.173	-.338	-.298	.038	.106	.236	-.430	-.188	-.094
17	-.402	-.576	-.245	.046	.097	.251	.113	-.393	-.130
18	.218	-.573	-.049	.053	.078	.257	.263	.178	-.052
19	-.324	.601	.376	.070	.021	.278	.372	-.902	-.140
20	.156	.500	.343	.082	.072	.289	.499	-.220	-.228
21	-.288	.323	.268	.189	.034	r.113	-2.499	-.057	-.279
22	.216	.357	.290	.143	.049	-.130	-.104	-3.628	-.310
23	.087	.609	.346	.154	.008	-.191	-.221	.345	-.350
24	-1.237	.561	.260	.150	-.084	-.257	-.365	-1.287	-.220
25	.152	.074	-.071	.059	-.376	-.361	-.846	.213	.069
26	-.287	-.620	-.067	-.015	-.490	-.546	-3.578	-1.910	-.071
				$\delta_r = -30°$					
1	-.169	-.256	-.813	-.117	-.006	.030	.077	.084	.846
2	-.235	-.258	-.744	-.042	.076	.140	.163	.210	.684
3	-.268	-.265	-.473	-.055	.082	.132	.187	.261	.342
4	-.274	-.329	-.425	-.026	.080	.124	.188	.317	.029
5	-.289	-.446	-.883	-.016	.055	.126	.188	.361	-.080
6	-.322	-.496	-.969	.012	.037	.114	.196	.431	-.160
7	-.414	.417	.367	.038	.094	.071	.194	-.144	-.066
8	-.350	.290	.325	.253	.057	-.018	.194	-.206	-.229
9	.214	.213	.240	.194	.031	-.063	-.062	-.261	-.193
10	.126	.275	.275	.166	-.063	-.059	-.107	-.389	-.240
11	.050	.460	.273	.170	-.229	-.126	-.111	-.595	-.207
12	.039	.398	.171	.178	-.256	-.102	-.147	-1.277	-.135
13	.056	-.252	-.410	.111	.006	-.220	-.194	.132	.033
14	.070	-.240	-.406	.032	.084	-1.150	-.224	.369	.100
15	.109	-.250	-.267	-.032	.105	.177	-.321	-1.996	-.051
16	.113	-.304	-.317	.048	.100	.226	-.698	-.226	-.082
17	-.386	-.488	-.285	.055	.086	.244	.147	-.433	-.125
18	.171	-.542	-.221	.061	.068	.258	.298	.182	-.045
19	-.295	.502	.354	.069	.016	.276	.399	-.950	-.133
20	.113	.400	.317	.075	.045	.283	.514	-.263	-.219
21	-.256	.275	.233	.174	.006	-.130	-2.736	-.078	-.268
22	.169	.342	.260	.103	.021	-.150	-.105	-3.653	-.293
23	.070	.560	.263	.111	-.025	-.209	-.252	.333	-.332
24	-1.274	.456	.150	.111	-.107	-.280	-.413	-1.357	-.195
25	.134	.073	-.075	.010	-.426	-.382	-.935	.198	.086
26	-.297	-.671	-.069	-.079	-.563	-.555	-3.101	-1.962	-.061
				$\delta_r = -20°$					
1	.089	-.081	-.800	-.123	-.006	.038	.064	.091	.850
2	.101	-.077	-1.048	-.055	.086	.138	.147	.226	.695
3	.083	-.101	-1.238	-.063	.082	.136	.179	.270	.345
4	.058	-.176	-1.140	-.069	.076	.124	.183	.329	.030
5	.018	-.198	-1.308	-.051	.044	.118	.183	.378	-.084
6	-.016	-.238	-1.116	-.014	.020	.112	.189	.433	-.164
7	-.014	.319	.410	.010	.074	.066	.187	-.148	-.062
8	-.046	.232	.312	.190	.002	-.040	.185	-.222	-.230
9	.240	.184	.242	.139	-.006	-.094	-.086	-.280	-.198
10	.192	.230	.260	.125	-.116	-.090	-.135	-.423	-.248
11	.141	.299	.380	.137	-.290	-.152	-.133	-.628	-.214
12	.141	.232	.296	.141	-.310	-.112	-.161	-1.445	-.134
13	.151	-.212	-.404	.061	.016	-.274	-.209	.154	.048
14	.163	-.238	-.464	-.018	.098	-1.248	-.237	.396	.100
15	.159	-.281	-.272	-.046	.112	.188	-.335	-2.262	-.056
16	.105	-.311	-.312	.028	.104	.234	-.566	-.228	-.098
17	-.065	-.354	-.346	.034	.088	.250	.116	-.443	-.138
18	.192	-.358	-.274	.042	.066	.256	.259	.201	-.052
19	.016	.386	.304	.048	.006	.282	.382	-1.118	-.138
20	.155	.293	.282	.051	.024	.286	.498	-.262	-.226
21	.056	.216	.208	.133	-.024	-.158	-2.677	-.179	-.275
22	.188	.271	.210	.067	-.028	-.176	-.110	-4.016	-.299
23	.069	.364	.168	.085	-.062	-.242	-.259	.346	-.339
24	-1.365	.271	.060	.073	-.164	-.310	-.408	-1.736	-.208
25	.135	.055	-.066	-.022	-.518	-.428	-.914	.207	.082
26	-.315	-.760	-.058	-.121	-.602	-.600	-3.438	-2.138	-.048

TABLE 9 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 0°$					
1	.137	.096	.280	.075	.117	.104	.131	.125	.835
2	.177	.155	.386	.163	.191	.180	.211	.257	.669
3	.137	.121	.306	.106	.146	.167	.227	.296	.317
4	.103	.090	.196	.135	.111	.151	.233	.349	.004
5	.095	.088	.214	.116	.051	.135	.229	.398	-.091
6	.097	.072	.212	.090	.002	.114	.225	.439	-.175
7	.042	.094	.169	.059	-.043	.047	.215	-.202	-.029
8	.014	.037	.024	.029	-.128	-.165	.183	-.288	-.241
9	.163	.016	-.020	-.063	-.138	-.206	-.175	-.363	-.202
10	.127	.002	-.049	-.098	-.268	-.220	-.221	-.518	-.228
11	.087	-.072	-.306	-.075	-.556	-.273	-.235	-.729	-.183
12	.087	-.145	-.376	-.080	-.543	-.163	-.268	-1.680	-.064
13	.064	.096	.029	-.175	.103	-.475	-.326	.182	.173
14	.054	.166	.102	-.286	.177	-1.635	-.346	.429	.117
15	-.030	.135	.149	.098	.179	.243	-.477	-2.788	-.101
16	-.095	.110	.125	.159	.150	.261	-1.352	-.314	-.146
17	.070	.096	-.059	.155	.111	.273	.169	-.559	-.177
18	.032	.088	-.078	.120	.064	.273	.310	.224	-.084
19	.119	.074	.043	.082	-.027	.302	.431	-1.557	-.158
20	.052	.006	-.037	.047	-.101	.286	.541	-.365	-.247
21	.163	-.006	-.025	-.035	-.150	+.269	-3.531	-.675	-.290
22	.082	-.023	-.002	-.118	-.148	-.312	-.135	-4.761	-.321
23	.030	-.117	-.004	-.094	-.173	-.386	-.366	.333	-.352
24	-1.495	-.172	-.084	-.125	-.300	-.453	-.553	-2.171	-.222
25	.135	.045	-.022	-.241	-.831	-.596	-1.211	.210	.070
26	-.561	-1.090	-.031	-.396	-.833	-.967	-3.272	-2.492	-.027
				$\delta_r = 20°$					
1	.177	.211	.366	.279	.213	.170	.189	.209	.834
2	.286	.412	.518	.345	.275	.251	.271	.319	.694
3	.250	.412	.644	.256	.212	.236	.279	.351	.346
4	.211	.363	.719	.359	.138	.192	.271	.408	.024
5	.197	.328	.704	.298	.050	.174	.254	.442	-.091
6	.163	.256	.642	.202	-.037	.143	.250	.472	-.166
7	.036	-.123	-.816	.091	-.179	.042	.234	-.254	-.067
8	-.034	-.150	-1.065	-.174	-.269	-.248	.201	-.361	-.239
9	.087	-.234	-.806	-.324	-.304	-.299	-.275	-.455	-.196
10	.044	-.393	-1.251	-.360	-.494	-.313	-.297	-.607	-.194
11	.022	-.494	-2.472	-.341	-.935	-.352	-.326	-.805	-.128
12	-.032	-.508	-3.267	-.376	-.852	-.198	-.367	-2.355	.032
13	-.115	.318	.360	-.560	.177	-.610	-.410	.252	.200
14	-.219	.506	.486	-.740	.242	-1.921	-.398	.484	.087
15	-.767	.531	.516	.219	.235	.273	-.521	-3.649	-.152
16	-.431	.498	.490	.291	.192	.309	-2.217	-.385	-.200
17	.205	.434	.243	.277	.127	.313	.219	-.706	-.213
18	-.290	.324	.030	.221	.040	.307	.379	.292	-.091
19	.304	-.309	-.409	.143	-.071	.319	.479	-2.256	-.164
20	-.117	-.354	-.532	.052	-.219	.295	.557	-.480	-.241
21	.338	-.375	-.520	-.178	-.260	-.345	-4.137	-1.057	-.291
22	-.002	-.518	-.488	-.308	-.277	-.378	-.180	-5.645	-.336
23	.016	-.670	-.632	-.293	-.302	-.450	-.471	.328	-.370
24	-1.545	-.730	-.680	-.329	-.487	-.521	-.711	-2.723	-.235
25	.159	.047	-.057	-.514	-1.269	-.620	-1.549	.199	.059
26	-.918	-1.617	-.042	-.771	-1.085	-1.481	-3.244	-2.577	-.071
				$\delta_r = 30°$					
1	.167	.250	.509	.326	.251	.211	.231	.220	.824
2	.349	.503	.633	.420	.325	.285	.304	.336	.679
3	.334	.559	.711	.332	.216	.249	.322	.363	.329
4	.276	.507	.676	.460	.137	.223	.298	.407	.025
5	.288	.417	.572	.389	.041	.199	.286	.454	-.080
6	.251	.283	.485	.265	-.067	.153	.274	.475	-.162
7	.098	-.292	-1.403	.120	-.257	.040	.247	-.305	-.082
8	-.050	-.265	-1.890	-.289	-.335	-.307	.215	-.418	-.229
9	-.027	-.353	-1.528	-.415	-.359	-.349	-.302	-.525	-.182
10	-.102	-1.322	-1.829	-.468	-.549	-.394	-.370	-.735	-.176
11	-.123	-1.070	-2.277	-.460	-1.035	-.390	-.374	-.876	-.090
12	-.140	-1.016	-1.701	-.470	-.953	-.229	-.404	-2.949	.088
13	-.175	.386	.501	-.619	.220	-.755	-.439	.259	.215
14	-.267	.616	.642	-.827	.280	-2.112	-.427	.497	.076
15	-1.547	.688	.688	.265	.276	.317	-.519	-4.181	-.164
16	-.979	.649	.637	.338	.208	.341	-2.666	-.438	-.204
17	.319	.536	.399	.342	.125	.327	.256	-.794	-.215
18	-.480	.378	.171	.281	.041	.333	.414	.291	-.084
19	.411	-.596	-.637	.171	-.090	.333	.501	-2.676	-.157
20	-.182	-.481	-.896	.069	-.263	.309	.581	-.552	-.237
21	.432	-.692	-.880	-.259	-.308	-.390	-4.519	-1.236	-.286
22	-.140	-1.080	-.811	-.371	-.331	-.444	-.201	-5.980	-.311
23	-.010	-1.025	-.798	-.361	-.357	-.516	-.523	.332	-.344
24	-1.585	-1.234	-.483	-.377	-.524	-.582	-.761	-3.033	-.225
25	.163	.031	-.071	-.552	-1.380	-.578	-1.718	.185	.065
26	-1.107	-1.686	-.073	-.829	-1.204	-2.357	-3.433	-2.737	-.063

TABLE 9 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9^\circ$; $\alpha = 10^\circ$; $\delta_e = 0^\circ$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 40^\circ$					
1	.063	.274	.563	.402	.275	.222	.230	.252	.841
2	.359	.579	.688	.497	.364	.288	.309	.349	.684
3	.376	.676	.760	.376	.279	.275	.321	.385	.334
4	.327	.617	.621	.549	.170	.228	.313	.428	.016
5	.320	.530	.427	.479	.063	.207	.291	.462	-.095
6	.276	.400	.272	.318	-.046	.162	.281	.487	-.173
7	.161	-.388	-.996	.183	-.244	.051	.257	-.279	-.074
8	.020	-.390	-1.306	-.266	-.331	-.294	.208	-.397	-.233
9	-.222	-.736	-1.119	-.423	-.360	-.329	-.307	-.493	-.193
10	-.284	-1.017	-1.212	-.453	-.572	-.353	-.347	-.657	-.173
11	-.357	-.905	-1.024	-.425	-1.046	-.384	-.354	-.821	-.074
12	-.420	-.850	-.873	-.461	-.962	-.222	-.404	-2.994	.109
13	-.498	.485	.542	-.606	.242	-.688	-.455	.283	.189
14	-.716	.718	.643	-.783	.313	-2.080	-.416	.514	.056
15	-1.586	.833	.819	.318	.297	.316	-.533	-4.170	-.181
16	-.863	.765	.762	.390	.230	.343	-2.562	-.412	-.203
17	.422	.656	.462	.404	.154	.337	.285	-.755	-.225
18	-.951	.503	.284	.330	.059	.339	.418	.314	-.095
19	.512	-.334	-.558	.207	-.081	.339	.517	-2.684	-.173
20	-.516	-.567	-.819	.093	-.263	.312	.592	-.526	-.241
21	.461	-.882	-.798	-.247	-.313	-.378	-4.459	-1.243	-.292
22	-.394	-.992	-.708	-.364	-.339	-.423	-.208	-5.778	-.332
23	.002	-.866	-.500	-.354	-.366	-.499	-.521	.345	-.368
24	-1.578	-.841	-.268	-.384	-.547	-.554	-.772	-2.900	-.241
25	.176	.047	-.060	-.588	-1.410	-.598	-1.687	.204	.070
26	-1.084	-1.676	-.113	-.845	-1.208	-1.988	-3.408	-2.580	-.076

TABLE 10

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.403	-.413	-.619	-.478	-.310	-.267	-.268	-.329	.594
2	-.461	-.568	-.818	-.531	-.324	-.335	-.414	-.453	.447
3	-.466	-.779	-1.199	-.323	.147	-.166	-.348	-.393	.121
4	-.426	-.957	-1.225	-.260	.194	.158	-.168	-.196	-.169
5	-.357	-.847	-1.756	-.026	.174	.238	.018	.054	-.272
6	-.294	-.797	-1.531	.049	.143	.255	.195	.333	-.354
7	-.167	.279	.537	.087	.153	.211	.303	.024	-.070
8	-.248	.438	.641	.394	.165	.023	.336	.010	-.443
9	-.033	.533	.609	.425	.105	.000	-.008	-.078	-.447
10	.115	.519	.395	.435	.025	-.043	-.008	-.164	-.531
11	.205	.529	.186	.413	-.147	-.057	-.053	-.248	-.402
12	.288	.450	.035	.372	-.184	-.080	-.117	-.561	-.282
13	.338	-.475	-.623	.285	-.293	-.140	-.129	-.625	-.159
14	.365	-.572	-.729	.189	-.426	-1.086	-.143	-.924	.078
15	.355	-.764	-.791	-.386	-.169	-.423	-.195	-1.647	-.107
16	.344	-1.027	-1.035	-.451	.147	-.351	-.428	.285	-.252
17	-.724	-1.114	-.617	-.159	.213	-.170	-.410	.343	-.250
18	.441	-1.238	-.346	.093	.161	.037	-.529	-1.126	-.111
19	-.754	.527	.541	.157	.120	.232	-.473	-2.754	-.300
20	.380	.651	.639	.152	.089	.363	-.199	.525	-.417
21	-.631	.647	.617	.244	.089	-.019	.039	-2.329	-.469
22	.219	.572	.531	.266	.027	-.076	-.045	.044	-.497
23	.213	.541	.391	.240	.008	-.138	.051	.425	-.525
24	-1.221	.419	.227	.209	-.056	-.166	-.012	-.848	-.402
25	.278	.192	-.092	.128	-.391	-.228	-.131	.359	-.131
26	-.202	-.614	-.090	.043	-.502	-.380	-1.490	-1.864	-.078
				$\delta_r = -30°$					
1		-.317	-.947	-.476	-.297	-.248	-.400	-.309	.603
2		-.377	-1.381	-.516	-.285	-.311	-.325	-.447	.451
3		-.355	-1.720	-.291	.152	-.148	-.135	-.357	.116
4		-.393	-1.465	-.224	.195	.150	.053	-.136	-.190
5		-.317	-1.831	.016	.154	.244	.214	.106	-.305
6		-.377	-1.704	.075	.135	.262	.318	.399	-.367
7		.165	.459	.065	.104	.211	.335	.002	-.082
8		.317	.568	.258	.105	-.012	-.020	-.032	-.461
9		.429	.607	.313	.053	-.059	-.037	-.106	-.453
10		.444	.523	.315	-.035	-.125	-.069	-.194	-.547
11		.482	.374	.295	-.213	-.123	-.135	-.301	-.399
12		.403	.249	.270	-.234	-.105	-.147	-.661	-.293
13		-.419	-.683	.203	-.277	-.225	-.165	-.587	-.142
14		-.528	-.807	.100	-.393	-1.213	-.218	-.832	.104
15		-.522	-.514	-.388	-.129	-.404	-.490	-1.146	-.142
16		-.597	-.613	-.439	.152	-.340	-.373	.210	-.285
17		-.567	-.482	-.142	.207	-.146	-.502	.285	-.283
18		-.577	-.358	.118	.174	.043	-.447	-.982	-.132
19		.363	.473	.159	.096	.244	-.149	-2.663	-.303
20		.502	.558	.152	.037	.357	-.020	.517	-.433
21		.532	.539	.156	.049	-.053	-.022	-2.381	-.487
22		.514	.451	.175	-.020	-.119	.025	.248	-.515
23		.500	.339	.138	-.027	-.199	-.025	.483	-.547
24		.411	.187	.146	-.090	-.234	-.159	-1.038	-.423
25		.190	-.072	.061	-.443	-.295	-1.665	.375	-.142
26		-.720	-.068	-.051	-.551	-.461		-2.116	-.078
				$\delta_r = -20°$					
1	-.080	-.194	-.631	-.360	-.225	-.229	-.246	-.297	.602
2	-.094	-.249	-.835	-.394	-.218	-.289	-.372	-.438	.451
3	-.027	-.164	-1.029	-.242	.176	-.130	-.319	-.343	.135
4	.027	-.103	-1.069	-.170	.235	.180	-.129	-.141	-.152
5	.076	-.097	-1.157	-.004	.173	.271	.032	.091	-.261
6	.090	-.123	-.918	.136	.133	.267	.190	.382	-.349
7	.096	.053	.410	.134	.041	.215	.287	-.018	-.046
8	.053	.190	.527	.156	.035	-.045	.315	-.038	-.426
9	-.035	.310	.602	.202	-.033	-.091	-.057	-.123	-.434
10	.065	.332	.533	.218	-.127	-.125	-.091	-.206	-.503
11	.120	.356	.431	.198	-.320	-.130	-.143	-.331	-.345
12	.173	.263	.369	.168	-.298	-.091	-.202	-.687	-.228
13	.208	-.296	-.459	.084	-.210	-.223	-.226	-.574	-.051
14	.237	-.374	-.545	-.010	-.310	-1.354	-.228	-.832	.105
15	.251	-.312	-.325	-.292	-.090	-.374	-.279	-1.234	-.141
16	.190	-.265	-.278	-.354	.167	-.312	-.659	.196	-.281
17	.033	-.247	-.235	-.102	.229	-.123	-.388	.275	-.267
18	.259	-.237	-.155	.104	.180	.077	-.513	-.982	-.125
19	-.025	.206	.325	.184	.094	.267	-.442	-2.650	-.289
20	.206	.328	.406	.162	-.014	.389	-.186	.489	-.412
21	-.133	.391	.388	.090	-.002	-.069	-.139	-2.315	-.455
22	.090	.385	.314	.098	-.106	-.123	-.042	.192	-.483
23	.206	.397	.229	.078	-.104	-.206	-.018	.457	-.525
24	-1.278	.281	.102	.042	-.192	-.227	-.099	-1.077	-.404
25	.282	.192	-.053	-.046	-.594	-.304	-.224	.370	-.127
26	-.353	-.830	-.059	-.152	-.596	-.472	-1.859	-2.226	-.055

TABLE 10 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 0°$					
1	-.014	-.061	-.068	-.099	-.101	-.149	-.151	-.232	.588
2	.016	-.032	-.012	-.127	-.117	-.224	-.245	-.305	.456
3	.050	.071	.130	-.053	.169	-.083	-.213	-.232	.140
4	.093	.130	.210	.048	.198	.161	-.072	-.059	-.156
5	.123	.156	.303	.174	.147	.244	.059	.159	-.264
6	.143	.138	.283	.196	.087	.264	.184	.364	-.356
7	.083	-.077	-.016	.154	-.081	.196	.278	-.083	-.044
8	.063	-.043	.116	-.083	-.085	-.135	.307	-.185	-.442
9	-.016	.008	.058	-.046	-.190	-.171	-.121	-.297	-.438
10	-.004	-.043	-.096	-.032	-.308	-.220	-.160	-.392	-.476
11	.026	-.126	-.399	-.087	-.520	-.244	-.241	-.504	-.296
12	.052	-.172	-.479	-.127	-.474	-.127	-.335	-1.077	-.118
13	.054	-.077	-.092	-.216	-.125	-.375	-.368	-.480	.098
14	.056	-.063	-.112	-.303	-.214	-1.615	-.366	-.671	.072
15	-.034	.067	.058	-.117	-.050	-.323	-.425	-.752	-.204
16	-.105	.142	.170	-.166	.147	-.274	-1.307	.128	-.338
17	.099	.170	.006	.014	.206	-.099	-.331	.081	-.318
18	.030	.142	-.032	.178	.141	.062	-.409	-.854	-.144
19	.073	-.101	-.076	.196	.065	.238	-.389	-2.077	-.308
20	.028	-.047	-.072	.150	-.107	.359	-.135	.368	-.422
21	-.022	-.028	-.042	-.091	-.089	-.121	-.427	-2.311	-.468
22	-.038	-.077	.002	-.075	-.206	-.185	-.027	-.079	-.502
23	.171	-.166	-.034	-.131	-.228	-.274	-.092	.384	-.540
24	-1.446	-.221	-.122	-.178	-.351	-.317	-.200	-2.152	-.408
25	.252	.160	-.048	-.301	-.784	-.385	-.333	.303	-.132
26	-.526	-1.083	-.038	-.394	-.724	-.556	-2.601	-2.805	-.052
				$\delta_r = 20°$					
1	.055	.076		.088	.018	-.053	-.099	-.169	.597
2	.106	.134		.064	-.014	-.123	-.173	-.283	.441
3	.145	.266		.054	.160	-.024	-.149	-.215	.124
4	.184	.326		.158	.172	.154	-.034	-.063	-.176
5	.216	.310		.234	.097	.210	.076	.134	-.273
6	.210	.250		.198	.004	.230	.181	.323	-.363
7	.129	-.238		.102	-.238	.145	.233	-.102	-.044
8	.041	-.214		-.331	-.259	-.222	.260	-.193	-.439
9	-.006	-.286		-.313	-.433	-.303	-.201	-.303	-.419
10	.012	-.436		-.313	-.628	-.388	-.260	-.404	-.427
11	.018	-.644		-.351	-.844	-.434	-.362	-.530	-.206
12	-.010	-.690		-.453	-.721	-.224	-.459	-1.024	.000
13	-.061	.110		-.621	-.016	-.699	-.491	-.459	.158
14	-.157	.154		-.739	-.094	-1.737	-.485	-.671	.024
15	-.537	.312		.044	.004	-.236	-.588	-.791	-.257
16	-.416	.402		-.002	.138	-.192	-1.680	.154	-.379
17	.255	.386		.094	.177	-.055	-.268	.126	-.347
18	-.251	.419		.170	.119	.093	-.354	-.815	-.154
19	.222	-.478		.168	-.010	.230	-.328	-2.276	-.305
20	-.108	-.424		.110	-.240	.315	-.119	.413	-.411
21	.122	-.534		-.261	-.216	-.244	-.797	-2.287	-.465
22	-.055	-.688		-.236	-.398	-.347	-.064	.091	-.493
23	.112	-.882		-.317	-.441	-.446	-.189	.354	-.513
24	-1.490	-.988		-.389	-.647	-.479	-.310	-2.126	-.391
25	.267	.142		-.553	-1.105	-.554	-.451	.303	-.124
26	-.904	-1.306		-.689	-.885	-.804	-3.195	-2.986	-.044
				$\delta_r = 30°$					
1	.052	.123	.222	.167	.075	-.018	-.078	-.126	.579
2	.102	.173	.248	.161	.034	-.094	-.164	-.196	.469
3	.147	.317	.427	.124	.172	-.008	-.168	-.130	.164
4	.199	.391	.535	.242	.176	.187	-.062	.004	-.150
5	.245	.355	.486	.291	.093	.233	.052	.183	-.259
6	.241	.236	.378	.228	-.004	.247	.166	.352	-.347
7	.124	-.349	-1.329	.085	-.261	.147	.230	-.153	-.046
8	-.024	-.274	-2.165	-.380	-.285	-.245	.250	-.285	-.425
9	-.147	-.397	-2.791	-.382	-.461	-.327	-.214	-.420	-.403
10	-.114	-.869	-2.709	-.417	-.655	-.390	-.246	-.507	-.403
11	-.129	-1.083	-3.636	-.520	-.899	-.420	-.334	-.639	-.202
12	-.120	-1.143	-2.293	-.636	-.766	-.211	-.432	-1.363	.020
13	-.151	.188	.226	-.811	.022	-.651	-.486	-.377	.144
14	-.261	.228	.258	-.907	-.038	-1.851	-.502	-.515	.022
15	-1.257	.363	.341	.112	.046	-.189	-.590	-.385	-.257
16	-.930	.470	.441	.081	.152	-.155	-1.644	.055	-.373
17	.285	.437	.315	.163	.180	-.032	-.278	-.029	-.341
18	-.514	.292	.100	.209	.103	.110	-.378	-.686	-.128
19	.253	-.460	-.724	.167	-.012	.257	-.376	-1.701	-.275
20	-.203	-.446	-.994	.091	-.251	.335	-.158	.281	-.403
21	.133	-.766	-1.154	-.315	-.230	-.249	-.668	-2.216	-.451
22	-.159	-1.157	-1.087	-.293	-.408	-.343	-.080	-.330	-.493
23	.122	-1.248	-1.136	-.417	-.453	-.424	-.160	.354	-.525
24	-1.570	-1.625	-.760	-.520	-.657	-.470	-.280	-3.028	-.423
25	.237	.133	-.059	-.711	-1.156	-.538	-.436	.287	-.160
26	-.825	-1.367	-.051	-.811	-.931	-.795	-3.014	-3.098	-.054

TABLE 10 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 40°$					
1	-.018	.102	.230	.193	.090	-.034	-.063	-.157	.602
2	.000	.156	.264	.191	.031	-.084	-.144	-.238	.463
3	.034	.333	.427	.159	.190	.000	-.132	-.194	.132
4	.108	.453	.508	.283	.225	.176	-.024	-.067	-.159
5	.168	.457	.458	.356	.139	.220	.085	.115	-.260
6	.210	.381	.377	.307	.073	.230	.197	.308	-.348
7	.186	-.425	-.444	.189	-.186	.140	.258	-.107	-.051
8	.088	-.423	-.510	-.262	-.204	-.224	.276	-.196	-.427
9	-.200	-.539	-.615	-.234	-.333	-.320	-.191	-.333	-.400
10	-.323	-.583	-.677	-.252	-.498	-.396	-.220	-.427	-.402
11	-.453	-.611	-.857	-.309	-.747	-.436	-.313	-.544	-.195
12	-.535	-.623	-.675	-.378	-.645	-.238	-.411	-1.073	.018
13	-.597	.188	.218	-.512	.033	-.716	-.443	-.437	.132
14	-.607	.248	.246	-.571	-.041	-1.684	-.449	-.651	.026
15	-.878	.427	.415	.132	.043	-.182	-.530	-.839	-.236
16	-.623	.541	.534	.110	.173	-.160	-1.652	.137	-.346
17	.341	.545	.448	.185	.212	-.022	-.250	.105	-.327
18	-.699	.447	.284	.254	.155	.108	-.335	-.823	-.142
19	.236	-.335	-.510	.230	.047	.236	-.311	-2.200	-.287
20	-.613	-.365	-.603	.136	-.186	.314	-.102	.403	-.394
21	.080	-.515	-.605	-.228	-.176	.268	-.799	-2.175	-.445
22	-.429	-.567	-.474	-.193	-.320	-.374	-.065	.016	-.484
23	.092	-.609	-.454	-.291	-.353	-.466	-.159	.321	-.514
24	-1.407	-.683	-.258	-.364	-.527	-.486	-.270	-2.159	-.390
25	.222	.140	-.079	-.539	-1.043	-.562	-.437	.278	-.120
26	-.984	-1.321	-.065	-.618	-.849	-.874	-3.203	-2.905	-.051

TABLE 11

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.548	-.510	-2.126	-.330	-.010	.167	.264	.438	.268
2	-.576	-.672	-2.914	-.822	.036	.199	.285	.488	.674
3	-.690	-1.279	-1.628	-.310	.082	.229	.303	.478	.475
4	-.882	-1.338	-1.691	-.306	.100	.265	.335	.584	.180
5	-.961	-1.350	-1.951	-.245	.058	.281	.360	.640	.049
6	-1.004	-1.049	-2.232	-.164	-.006	.277	.388	.674	-.055
7	-.929	-.568	-.469	-.132	-.750	.223	.400	-.574	-.244
8	-.862	-.723	-.619	-.650	-.770	-.723	.372	-.634	-.191
9	-.546	-.822	-.757	-.715	-.723	-.695	-.677	-.622	-.148
10	-.754	-.848	-.833	-.751	-.695	-.689	-.669	-.624	.223
11	-.806	-.813	-.833	-.781	-.677	-.655	-.654	-.620	.145
12	-.811	-.789	-.792	-.767	-.669	-.416	-.640	-.610	.012
13	-.821	-.596	-1.033	-.715	.076	-.631	-.630	.722	.012
14	-.855	-1.061	-1.251	-.686	.090	-.627	-.626	.802	-.291
15	-.827	-1.357	-1.305	-.121	.130	.378	-.608	-.624	-.342
16	-.851	-1.400	-1.366	-.109	.164	.412	-.594	-.616	-.504
17	-1.200	-1.635	-1.014	-.065	.172	.454	.545	-.618	-.463
18	-.851	-1.555	-.877	-.024	.132	.480	.598	.874	-.322
19	-1.061	-.588	-.521	.012	.034	.528	.663	-.632	-.299
20	-.827	-.709	-.661	.000	-.764	.522	.734	-.630	-.309
21	-.568	-.811	-.767	-.715	-.754	-.655	-.663	-.640	-.375
22	-.721	-.830	-.786	-.757	-.737	-.643	-.402	-.610	-.477
23	.228	-.793	-.745	-.769	-.697	-.635	-.624	.568	-.615
24	-.642	-.764	-.710	-.739	-.675	-.625	-.612	-.616	-.705
25	.324	.170	-.247	-.694	-.669	-.631	-.606	.434	-.615
26	-.648	-.646	-.243	-.672	-.661	-.620	-.600	-.616	-.244
				$\delta_r = -30°$					
1	-.444	-.467	-1.751	-.303	.016	.167	.294	.448	.275
2	-.560	-.525	-2.586	-.859	.055	.211	.314	.487	.676
3	-.661	-.751	-3.148	-.309	.094	.233	.335	.489	.472
4	-.754	-.889	-3.074	-.315	.114	.265	.359	.590	.182
5	-.768	-.917	-2.300	-.261	.075	.283	.386	.646	.043
6	-.790	-.787	-1.916	-.168	.010	.287	.415	.681	-.067
7	-.851	-.477	-.434	-.131	-.792	.219	.425	-.610	-.251
8	-.788	-.658	-.593	-.669	-.804	-.825	.394	-.661	-.208
9	-.422	-.845	-.792	-.760	-.735	-.775	-.733	-.661	-.158
10	-.659	-.897	-.874	-.824	-.668	-.759	-.719	-.650	.219
11	-.798	-.841	-.840	-.844	-.652	-.693	-.694	-.646	.140
12	-.875	-.805	-.761	-.836	-.644	-.438	-.665	-.630	.014
13	-.919	-.559	-.895	-.739	.094	-.663	-.653	.727	.026
14	-.939	-.672	-1.148	-.697	.112	-.651	-.641	.782	-.304
15	-.887	-.992	-.971	-.117	.149	.388	-.622	-.650	-.352
16	-.885	-1.141	-1.113	-.105	.185	.420	-.604	-.650	-.520
17	-.826	-1.193	-1.016	-.067	.181	.458	.569	-.648	-.466
18	-.931	-1.183	-.835	-.028	.143	.492	.624	.875	-.324
19	-.695	-.543	-.525	.010	.049	.532	.688	-.653	-.308
20	-.869	-.684	-.665	-.034	-.807	.526	.750	-.653	-.316
21	-.549	-.847	-.807	-.758	-.804	-.723	-.665	-.665	-.387
22	-.655	-.887	-.837	-.808	-.766	-.709	-.409	-.636	-.484
23	.232	-.817	-.778	-.832	-.705	-.697	-.553	.576	-.615
24	-.651	-.787	-.726	-.780	-.656	-.681	-.647	-.634	-.723
25	.323	.175	-.245	-.693	-.648	-.675	-.645	.436	-.613
26	-.655	-.640	-.237	-.673	-.633	-.667	-.618	-.632	-.245
				$\delta_r = -20°$					
1	-.330	-.425	-1.193	-.229	.040	.191	.299	.434	.278
2	-.447	-.474	-1.551	-.363	.072	.225	.325	.478	.676
3	-.583	-.626	-1.921	-.240	.120	.251	.347	.482	.467
4	-.687	-.665	-2.061	-.219	.141	.285	.372	.578	.177
5	-.678	-.622	-1.787	-.168	.100	.291	.398	.632	.040
6	-.674	-.579	-1.400	-.094	.032	.297	.424	.670	-.064
7	-.726	-.466	-.484	-.070	-.831	.237	.422	-.696	-.256
8	-.662	-.620	-.618	-.684	-.865	-.835	.404	-.752	-.199
9	-.315	-.840	-.805	-.760	-.751	-.787	-.770	-.726	-.145
10	-.536	-.892	-.843	-.811	-.681	-.753	-.752	-.718	.229
11	-.713	-.785	-.764	-.850	-.665	-.689	-.729	-.702	.151
12	-.833	-.736	-.681	-.816	-.649	-.428	-.697	-.682	.024
13	-.901	-.509	-.722	-.699	.118	-.663	-.681	.718	.008
14	-.918	-.589	-.860	-.648	.135	-.645	-.665	.792	-.346
15	-.823	-.736	-.744	-.066	.167	.406	-.642	-.726	-.404
16	-.784	-.775	-.785	-.051	.199	.442	-.624	-.710	-.539
17	-.691	-.738	-.780	-.012	.197	.478	.578	-.720	-.481
18	-.920	-.689	-.667	.025	.165	.506	.632	.868	-.318
19	-.592	-.536	-.575	.051	.064	.538	.695	-.730	-.306
20	-.831	-.667	-.705	.035	-.867	.536	.752	-.714	-.320
21	-.406	-.841	-.829	-.781	-.869	-.735	-.711	-.716	-.398
22	-.548	-.877	-.835	-.824	-.811	-.723	-.434	-.706	-.489
23	.252	-.763	-.728	-.832	-.731	-.703	-.699	.564	-.630
24	-.643	-.712	-.656	-.777	-.673	-.691	-.691	-.674	-.720
25	.344	.186	-.248	-.684	-.665	-.673	-.685	.430	-.614
26	-.662	-.640	-.242	-.654	-.653	-.667	-.644	-.674	-.250

TABLE 11 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	-.350	-.344	-.426	-.143	.079	.202	.313	.462	.269
2	-.444	-.380	-.478	-.149	.115	.238	.327	.506	.681
3	-.549	-.433	-.639	-.161	.157	.253	.351	.502	.478
4	-.610	-.419	-.861	-.102	.155	.281	.381	.603	.187
5	-.562	-.348	-.639	-.065	.105	.293	.399	.661	.048
6	-.531	-.293	-.398	-.010	.032	.287	.425	.687	-.054
7	-.562	-.455	-.576	-.029	-.839	.236	.435	-.698	-.249
8	-.487	-.616	-.663	-.697	-.861	-.873	.425	-.770	-.189
9	-.368	-.799	-.763	-.772	-.774	-.840	-.846	-.760	-.145
10	-.552	-.829	-.759	-.813	-.722	-.810	-.842	-.748	.229
11	-.701	-.703	-.671	-.831	-.702	-.749	-.822	-.736	.169
12	-.798	-.659	-.651	-.768	-.698	-.453	-.792	-.720	.034
13	-.834	-.366	-.462	-.686	.135	-.715	-.770	.734	.036
14	-.824	-.384	-.506	-.670	.153	-.695	-.754	.806	-.351
15	-.707	-.431	-.422	-.016	.188	.394	-.735	-.752	-.426
16	-.646	-.398	-.398	.006	.214	.436	-.723	-.758	-.544
17	-.537	-.348	-.542	.045	.204	.467	.587	-.758	-.470
18	-.824	-.293	-.486	.077	.159	.493	.631	.877	-.321
19	-.479	-.547	-.633	.092	.052	.535	.699	-.772	-.303
20	-.804	-.661	-.739	.065	-.877	.529	.760	-.762	-.311
21	-.398	-.809	-.811	-.776	-.889	-.816	-.794	-.770	-.388
22	-.582	-.817	-.813	-.825	-.837	-.800	-.477	-.736	-.480
23	.242	-.691	-.715	-.823	-.768	-.776	-.798	.579	-.614
24	-.687	-.654	-.685	-.760	-.718	-.756	-.788	-.702	-.705
25	.356	.201	-.251	-.694	-.714	-.747	-.784	.444	-.606
26	-.701	-.689	-.249	-.672	-.698	-.723	-.719	-.696	-.241
				$\delta_r = 0°$					
1	-.324	-.222	.098	-.020	.125	.241	.354	.491	.254
2	-.376	-.202	.070	.018	.155	.272	.374	.535	.671
3	-.453	-.206	.237	-.056	.189	.295	.388	.527	.476
4	-.486	-.167	.090	.046	.181	.319	.414	.622	.200
5	-.429	-.081	.217	.074	.129	.323	.435	.671	.065
6	-.376	-.037	.241	.096	.040	.311	.455	.683	-.043
7	-.394	-.511	-.665	.074	-.815	.237	.459	-.717	-.243
8	-.327	-.639	-.727	-.723	-.839	-.836	.439	-.796	-.200
9	-.437	-.760	-.783	-.780	-.779	-.824	-.815	-.786	-.160
10	-.584	-.735	-.733	-.810	-.750	-.808	-.815	-.784	.225
11	-.704	-.644	-.641	-.816	-.738	-.771	-.805	-.768	.166
12	-.759	-.611	-.633	-.766	-.730	-.464	-.791	-.756	.031
13	-.773	-.143	-.183	-.713	.171	-.740	-.781	.756	.047
14	-.747	-.120	-.155	-.695	.181	-.734	-.773	.822	-.333
15	-.688	-.104	-.106	.076	.217	.431	-.759	-.790	-.431
16	-.608	-.069	-.074	.094	.235	.458	-.753	-.792	-.556
17	-.353	-.004	-.271	.138	.229	.493	.614	-.792	-.470
18	-.775	.028	-.247	.150	.173	.517	.666	.893	-.315
19	-.329	-.572	-.687	.148	.056	.550	.726	-.808	-.303
20	-.775	-.682	-.769	.110	-.833	.542	.775	-.798	-.313
21	-.302	-.776	-.821	-.782	-.841	-.806	-.789	-.798	-.386
22	-.614	-.737	-.882	-.824	-.823	-.800	-.467	-.768	-.481
23	.249	-.642	-.829	-.818	-.781	-.783	-.787	.578	-.597
24	-.743	-.621	-.785	-.778	-.750	-.767	-.777	-.745	-.708
25	.365	.218	-.239	-.731	-.742	-.763	-.781	.451	-.603
26	-.747	-.721	-.235	-.711	-.730	-.748	-.744	-.741	-.235
				$\delta_r = 10°$					
1	-.279	-.092	.190	.103	.198	.267	.365	.494	.287
2	-.307	-.040	.226	.143	.232	.305	.380	.532	.687
3	-.365	-.014	.573	.036	.250	.325	.398	.526	.485
4	-.377	.036	.659	.177	.228	.345	.418	.631	.196
5	-.309	.116	.697	.189	.156	.345	.440	.677	.061
6	-.259	.147	.605	.189	.056	.331	.458	.691	-.042
7	-.261	-.562	-.707	.127	-.818	.236	.460	-.747	-.238
8	-.216	-.685	-.782	-.744	-.856	-.826	.434	-.823	-.194
9	-.495	-.783	-.826	-.807	-.806	-.826	-.817	-.811	-.154
10	-.621	-.755	-.790	-.841	-.780	-.818	-.813	-.809	.234
11	-.715	-.681	-.705	-.841	-.766	-.790	-.809	-.799	.180
12	-.766	-.643	-.673	-.799	-.760	-.477	-.793	-.785	.057
13	-.766	.046	.084	-.746	.224	-.766	-.781	.763	.048
14	-.743	.108	.146	-.728	.246	-.764	-.779	.825	-.424
15	-.749	.147	.142	.147	.271	.439	-.769	-.819	-.459
16	-.627	.191	.190	.171	.283	.471	-.761	-.825	-.556
17	-.176	.243	.028	.207	.259	.505	.608	-.815	-.473
18	-.786	.237	-.014	.215	.198	.531	.661	.902	-.309
19	-.176	-.610	-.729	.197	.072	.557	.709	-.833	-.295
20	-.782	-.721	-.810	.141	-.840	.541	.765	-.833	-.307
21	-.192	-.805	-.858	-.799	-.850	-.810	-.797	-.819	-.376
22	-.657	-.771	-.918	-.841	-.838	-.806	-.474	-.801	-.471
23	.236	-.691	-.938	-.847	-.806	-.798	-.789	.584	-.600
24	-.784	-.663	-.838	-.801	-.770	-.790	-.783	-.783	-.699
25	.379	.219	-.253	-.765	-.770	-.788	-.785	.452	-.594
26	-.784	-.767	-.244	-.748	-.760	-.770	-.761	-.785	-.238

TABLE 11 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	-.206	.040	.341	.225	.257	.300	.396	.504	.273
2	-.196	.125	.427	.296	.279	.323	.408	.542	.683
3	-.232	.187	.605	.134	.293	.343	.424	.532	.492
4	-.236	.242	.876	.304	.263	.359	.445	.633	.201
5	-.172	.315	.914	.300	.187	.361	.463	.673	.060
6	-.122	.312	.737	.282	.086	.345	.479	.679	-.050
7	-.112	-.601	-.721	.178	-.793	.244	.475	-.747	-.251
8	-.088	-.688	-.794	-.759	-.829	-.819	.443	-.817	-.197
9	-.566	-.768	-.830	-.819	-.793	-.817	-.811	-.811	-.147
10	-.616	-.748	-.802	-.848	-.767	-.810	-.816	-.809	.243
11	-.700	-.688	-.737	-.858	-.755	-.794	-.809	-.807	.185
12	-.744	-.661	-.683	-.826	-.755	-.480	-.791	-.799	.064
13	-.740	.236	.341	-.769	.269	-.776	-.787	.753	.048
14	-.724	.325	.409	-.755	.281	-.766	-.781	.825	-.418
15	-.814	.379	.365	.229	.307	.452	-.773	-.815	-.452
16	-.630	.423	.419	.245	.315	.488	-.768	-.817	-.568
17	.010	.456	.325	.278	.285	.512	.621	-.811	-.480
18	-.774		.212	.278	.217	.536	.670	.896	-.321
19	-.012	-.641	-.741	.237	.090	.565	.727	-.823	-.303
20	-.758	-.732	-.812	.154	-.809	.546	.770	-.819	-.307
21	-.048	-.796	-.850	-.809	-.821	-.790	-.787	-.827	-.376
22	-.644	-.766	-.948	-.848	-.809	-.794	-.469	-.795	-.472
23	.254	-.702	-.996	-.860	-.783	-.784	-.785	.568	-.596
24	-.768	-.679	-.882	-.838	-.765	-.774	-.781	-.795	-.697
25	.400	.224	-.259	-.791	-.761	-.770	-.779	.438	-.604
26	-.768	-.768	-.257	-.763	-.753	-.764	-.766	-.797	-.245
				$\delta_r = 30°$					
1	-.133	.199	.549	.365	.320	.329	.418	.535	.276
2	-.087	.312	.623	.411	.346	.347	.430	.573	.682
3	-.107	.394	.679	.238	.344	.361	.444	.557	.476
4	-.095	.455	.814	.443	.300	.375	.462	.653	.174
5	-.028	.501	.878	.427	.198	.369	.478	.697	.038
6	.022	.461	.770	.367	.097	.351	.492	.697	-.062
7	.052	-.634	-.711	.263	-.785	.255	.484	-.719	-.276
8	.048	-.706	-.784	-.760	-.820	-.830	.446	-.786	-.202
9	-.652	-.771	-.828	-.816	-.794	-.824	-.805	-.778	-.150
10	-.630	-.755	-.826	-.856	-.775	-.822	-.805	-.784	.244
11	-.704	-.708	-.770	-.862	-.757	-.796	-.805	-.770	.198
12	-.738	-.688	-.725	-.832	-.757	-.501	-.791	-.764	.074
13	-.742	.435	.533	-.796	.326	-.780	-.783	.784	.032
14	-.720	.541	.611	-.782	.334	-.776	-.775	.838	-.494
15	-.389	.608	.585	.319	.358	.467	-.773	-.780	-.486
16	-.650	.646	.635	.341	.354	.495	-.771	-.782	-.584
17	.195	.646	.523	.373	.314	.525	.637	-.778	-.510
18	-.779	.567	.363	.353	.231	.543	.681	.908	-.342
19	.161	-.672	-.717	.299	.093	.567	.731	-.794	-.314
20	-.753	-.730	-.788	.210	-.804	.551	.765	-.792	-.318
21	.099	-.793	-.840	-.804	-.818	-.806	-.783	-.794	-.394
22	-.662	-.775	-.928	-.844	-.812	-.792	-.482	-.762	-.492
23	.258	-.722	-.984	-.864	-.794	-.788	-.781	.593	-.630
24	-.765	-.698	-.878	-.840	-.769	-.784	-.775	-.766	-.722
25	.410	.258	-.267	-.806	-.761	-.778	-.771	.475	-.618
26	-.763	-.771	-.263	-.782	-.753	-.774	-.761	-.766	-.274
				$\delta_r = 40°$					
1	-.032	.347	.649	.485	.390	.383	.438	.537	.284
2	.028	.472	.720	.545	.408	.401	.450	.577	.684
3	.036	.554	.765	.320	.392	.413	.464	.557	.473
4	.057	.604	.739	.553	.338	.417	.484	.648	.179
5	.119	.627	.696	.529	.233	.407	.494	.688	.042
6	.170	.554	.643	.449	.119	.385	.510	.694	-.060
7	.208	-.649	-.729	.294	-.779	.259	.500	-.680	-.280
8	.174	-.689	-.792	-.730	-.819	-.792	.456	-.744	-.189
9	-.681	-.743	-.837	-.787	-.791	-.790	-.766	-.736	-.137
10	-.638	-.739	-.847	-.823	-.775	-.788	-.776	-.738	.260
11	-.685	-.709	-.835	-.833	-.765	-.776	-.764	-.732	.213
12	-.715	-.685	-.769	-.817	-.753	-.495	-.756	-.724	.093
13	-.717	.586	.645	-.781	.368	-.749	-.754	.775	.028
14	-.707	.689	.716	-.775	.380	-.741	-.750	.827	-.475
15	-.865	.755	.745	.398	.392	.499	-.744	-.738	-.475
16	-.655	.789	.784	.419	.388	.529	-.732	-.736	-.571
17	.370	.741	.653	.435	.342	.553	.647	-.732	-.495
18	-.774	.624	.453	.416	.254	.575	.688	.893	-.324
19	.321	-.669	-.733	.344	.107	.595	.738	-.750	-.298
20	-.729	-.725	-.802	.229	-.801	.559	.766	-.746	-.308
21	.238	-.775	-.839	-.775	-.815	-.768	-.750	-.767	-.388
22	-.661	-.757	-.933	-.813	-.813	-.768	-.482	-.724	-.483
23	.261	-.723	-1.039	-.833	-.793	-.758	-.744	.584	-.622
24	-.752	-.701	-.922	-.827	-.769	-.752	-.738	-.726	-.700
25	.418	.263	-.296	-.793	-.763	-.752	-.734	.461	-.584
26	-.754	-.751	-.292	-.771	-.757	-.745	-.728	-.730	-.284

[redacted]

TABLE 12

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.280	-.298	-1.775	-.258	.028	.174	.278		.496
2	-.376	-.467	-2.490	-.270	.059	.202	.296		.891
3	-.539	-1.058	-1.352	-.247	.083	.216	.315		.676
4	-.781	-1.010	-1.038	-.247	.069	.230	.329		.358
5	-.865	-1.051	-1.294	-.201	.014	.228	.345		.204
6	-.883	-.947	-1.405	-.135	-.047	.216	.353		.087
7	-.795	-.309	-.273	-.121	-.640	.139	.349		-.213
8	-.809	-.467	-.415	-.503	-.644	-.657	.317		-.079
9	-.239	-.621	-.575	-.557	-.612	-.630	-.595		-.063
10	-.481	-.679	-.652	-.602	-.581	-.620	-.589		.113
11	-.606	-.665	-.646	-.632	-.555	-.580	-.577		.022
12	-.646	-.648	-.591	-.638	-.547	-.366	-.560		-.051
13	-.660	-.370	-.860	-.600	.091	-.552	-.554		.000
14	-.674	-.858	-1.077	-.557	.110	-.545	-.544		-.178
15	-.694	-1.097	-1.022	-.080	.134	.366	-.528		-.466
16	-.755	-.975	-.915	-.060	.146	.396	-.518		-.532
17	-.968	-1.148	-.753	-.034	.122	.422	.552		-.490
18	-.682	-1.216	-.626	-.016	.075	.442	.593		-.443
19	-.915	-.364	-.342	-.004	-.024	.461	.645		-.227
20	-.644	-.479	-.462	-.028	-.650	.444	.690		-.204
21	-.358	-.615	-.579	-.604	-.646	-.578	-.565		-.257
22	-.473	-.661	-.615	-.626	-.628	-.570	-.359		-.356
23	.157	-.636	-.589	-.644	-.600	-.564	-.540		-.470
24	-.541	-.619	-.542	-.636	-.561	-.554	-.532		-.557
25	.270	.103	-.206	-.604	-.547	-.550	-.536		-.431
26	-.541	-.527	-.204	-.561	-.539	-.547	-.522		-.208
				$\delta_r = -30°$					
1	-.182	-.265	-1.588	-.218	.038	.184	.274	.427	.503
2	-.336	-.335	-2.414	-.301	.060	.207	.292	.473	.885
3	-.427	-.610	-3.046	-.234	.082	.227	.304	.463	.656
4	-.561	-.776	-3.034	-.265	.070	.236	.323	.541	.348
5	-.625	-.851	-2.369	-.224	.026	.230	.337	.583	.192
6	-.680	-.798	-1.735	-.154	-.044	.221	.353	.602	.082
7	-.791	-.220	-.239	-.133	-.709	.139	.349	-.559	-.200
8	-.789	-.424	-.420	-.495	-.727	-.729	.313	-.610	-.078
9	-.164	-.610	-.604	-.560	-.669	-.688	-.677	-.596	-.059
10	-.360	-.739	-.743	-.622	-.590	-.672	-.669	-.600	.129
11	-.488	-.721	-.767	-.657	-.562	-.617	-.649	-.588	.041
12	-.607	-.687	-.673	-.683	-.546	-.373	-.619	-.573	-.041
13	-.717	-.350	-.777	-.610	.100	-.568	-.607	.700	.012
14	-.785	-.525	-1.038	-.539	.125	-.555	-.589	.767	-.198
15	-.796	-.873	-.884	-.061	.139	.369	-.569	-.596	-.505
16	-.802	-1.044	-1.062	-.042	.155	.402	-.548	-.596	-.581
17	-.729	-1.061	-.996	-.036	.129	.424	.546	-.598	-.546
18	-.777	-1.083	-.751	-.010	.080	.441	.595	.863	-.425
19	-.530	-.283	-.347	.004	-.016	.459	.651	-.616	-.221
20	-.634	-.457	-.498	-.018	-.733	.434	.698	-.608	-.192
21	-.346	-.634	-.624	-.632	-.731	-.635	-.617	-.620	-.256
22	-.399	-.729	-.691	-.667	-.697	-.631	-.379	-.590	-.335
23	.144	-.681	-.655	-.693	-.639	-.617	-.619	.491	-.468
24	-.561	-.650	-.582	-.683	-.584	-.600	-.607	-.555	-.548
25	.261	.121	-.201	-.600	-.556	-.594	-.601	.342	-.417
26	-.571	-.554	-.191	-.552	-.546	-.576	-.563	-.555	-.192
				$\delta_r = -20°$					
1	-.144	-.249	-1.022	-.163	.070	.198	.293	.446	.502
2	-.261	-.333	-1.409	-.255	.096	.224	.321	.481	.899
3	-.409	-.512	-1.816	-.181	.116	.236	.331	.479	.661
4	-.520	-.592	-1.942	-.181	.102	.244	.345	.554	.351
5	-.551	-.568	-1.737	-.147	.038	.238	.357	.594	.202
6	-.583	-.564	-1.281	-.090	-.036	.214	.369	.604	.089
7	-.660	-.165	-.311	-.090	-.729	.138	.353	-.640	-.196
8	-.625	-.406	-.459	-.550	-.760	-.790	.325	-.695	-.085
9	-.115	-.635	-.641	-.622	-.709	-.762	-.755	-.681	-.069
10	-.328	-.741	-.697	-.673	-.635	-.743	-.745	-.673	.123
11	-.472	-.681	-.639	-.719	-.613	-.693	-.727	-.663	.038
12	-.597	-.602	-.553	-.713	-.603	-.407	-.701	-.646	-.040
13	-.698	-.325	-.609	-.625	.128	-.647	-.685	.717	.010
14	-.765	-.466	-.762	-.554	.150	-.627	-.669	.778	-.200
15	-.773	-.637	-.647	-.024	.164	.385	-.655	-.677	-.546
16	-.678	-.719	-.727	-.008	.172	.409	-.633	-.691	-.613
17	-.619	-.691	-.723	.014	.174	.439	.560	-.683	-.579
18	-.765	-.651	-.577	.030	.090	.451	.606	.869	-.427
19	-.466	-.245	-.413	.040	-.020	.477	.651	-.703	-.246
20	-.626	-.462	-.539	.002	-.772	.449	.689	-.693	-.206
21	-.269	-.661	-.659	-.673	-.772	-.733	-.697	-.701	-.266
22	-.364	-.739	-.691	-.727	-.743	-.721	-.418	-.669	-.351
23	.136	-.647	-.595	-.749	-.691	-.707	-.701	.485	-.474
24	-.642	-.572	-.499	-.723	-.639	-.687	-.697	-.640	-.569
25	.273	.106	-.204	-.639	-.623	-.673	-.701	.343	-.427
26	-.652	-.625	-.202	-.590	-.607	-.657	-.647	-.632	-.198

[redacted]

TABLE 12 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	-.083	-.164	-.286	-.093	.104	.222	.329	.459	.486
2	-.229	-.242	-.334	-.109	.134	.244	.345	.490	.893
3	-.366	-.331	-.547	-.119	.140	.255	.355	.492	.665
4	-.465	-.352	-.795	-.068	.112	.265	.369	.565	.345
5	-.457	-.305	-.622	-.052	.039	.261	.387	.602	.192
6	-.449	-.259	-.523	-.032	-.041	.240	.387	.602	.077
7	-.469	-.168	-.394	-.052	-.744	.147	.375	-.748	-.212
8	-.414	-.408	-.533	-.594	-.813	-.819	.327	-.829	-.085
9	-.068	-.650	-.686	-.682	-.762	-.811	-.845	-.807	-.063
10	-.308	-.719	-.706	-.736	-.695	-.792	-.845	-.803	.143
11	-.499	-.596	-.624	-.779	-.675	-.739	-.835	-.785	.054
12	-.624	-.521	-.545	-.757	-.667	-.424	-.808	-.762	-.026
13	-.692	-.226	-.372	-.658	.150	-.711	-.790	.736	.032
14	-.714	-.267	-.431	-.624	.171	-.692	-.772	.789	-.220
15	-.616	-.349	-.358	.026	.189	.407	-.754	-.809	-.526
16	-.517	-.349	-.366	.048	.193	.430	-.742	-.825	-.599
17	-.465	-.319	-.487	.060	.163	.454	.583	-.815	-.575
18	-.712	-.287	-.429	.070	.089	.470	.625	.886	-.484
19	-.370	-.273	-.475	.056	-.028	.487	.671	-.848	-.256
20	-.646	-.477	-.612	.014	-.791	.452	.702	-.839	-.204
21	-.223	-.691	-.728	-.692	-.825	.798	-.800	-.846	-.264
22	-.350	-.723	-.757	-.765	-.813	-.790	-.474	-.789	-.347
23	.131	-.600	-.652	-.805	-.760	-.770	-.825	.480	-.486
24	-.696	-.527	-.565	-.773	-.709	-.752	-.817	-.746	-.575
25	.268	.109	-.209	-.696	-.691	-.741	-.813	.346	-.458
26	-.726	-.693	-.205	-.654	-.677	-.721	-.762	-.736	-.212
				$\delta_r = 0°$					
1	.012	-.018	.221	.042	.165	.251	.334	.491	.489
2	-.110	-.036	.174	.097	.191	.277	.350	.527	.888
3	-.248	-.114	.375	-.002	.179	.285	.362	.513	.655
4	-.358	-.126	.146	.077	.129	.269	.372	.587	.339
5	-.352	-.074	.233	.083	.044	.261	.380	.621	.194
6	-.338	-.054	.176	.073	-.072	.233	.384	.593	.080
7	-.342	-.098	-.247	.012	-.829	.112	.368	-.898	-.176
8	-.302	-.411	-.568	-.486	-1.022	-1.060	.308	-.990	-.078
9	.004	-.800	-.921	-.712	-1.074	-1.102	-1.050	-.964	-.048
10	-.268	-.892	-1.063	-.849	-.958	-1.104	-1.064	-.950	.144
11	-.506	-.689	-.805	-.956	-.905	-1.018	-1.038	-.944	.074
12	-.690	-.589	-.700	-.986	-.891	-.540	-.998	-.922	.006
13	-.792	-.002	-.091	-.819	.193	-.958	-.968	.750	.078
14	-.790	.020	-.067	-.742	.213	-.942	-.956	.796	-.293
15	-.638	-.036	-.041	.117	.209	.418	-.926	-.956	-.549
16	-.536	-.030	-.045	.133	.221	.448	-.905	-.970	-.659
17	-.300	-.014	-.294	.145	.167	.460	.588	-.958	-.649
18	-.808	-.012	-.286	.143	.078	.470	.632	.894	-.473
19	-.218	-.176	-.310	.101	-.070	.482	.672	-.990	-.234
20	-.722	-.495	-.588	.020	-.958	.440	.696	-.986	-.202
21	-.080	-.864	-.913	-.677	-1.034	-1.050	-.950	-.986	-.259
22	-.324	-.934	-1.045	-.843	-1.087	-1.022	-.531	-.934	-.343
23	.104	-.737	-.905	-.992	-1.058	-.994	-.972	.465	-.481
24	-.892	-.661	-.753	-1.020	-.950	-.972	-.964	-.922	-.567
25	.278	.096	-.174	-.887	-.926	-.964	-.954	.323	-.443
26	-.904	-.932	-.174	-.806	-.909	-.948	-.917	-.918	-.172
				$\delta_r = 10°$					
1	.091	.124	.255	.188	.239	.304	.394	.506	.507
2	.010	.151	.293	.230	.268	.334	.410	.554	.896
3	-.119	.081	.727	.106	.237	.336	.416	.540	.663
4	-.241	.073	.687	.222	.164	.320	.420	.608	.351
5	-.245	.108	.677	.206	.047	.298	.422	.628	.196
6	-.257	.090	.537	.156	-.089	.262	.422	.578	.086
7	-.269	-.157	-.319	.062	-.795	.108	.396	-1.444	-.160
8	-.255	-.409	-.671	-.334	-1.219	-1.334	.325	-1.628	-.092
9	.012	-.892	-1.078	-.656	-1.404	-1.462	-1.506	-1.570	-.080
10	-.215	-1.149	-1.407	-.868	-1.152	-1.436	-1.576	-1.514	.142
11	-.449	-.969	-1.154	-1.068	-1.065	-1.280	-1.546	-1.460	.076
12	-.690	-.862	-.978	-1.314	-1.051	-.632	-1.472	-1.382	.014
13	-.872	.210	.186	-1.134	.260	-1.152	-1.394	.786	.114
14	-.953	.261	.250	-.946	.278	-1.124	-1.337	.820	-.240
15	-.895	.226	.224	.214	.276	.472	-1.283	-1.620	-.499
16	-.713	.228	.218	.238	.258	.496	-1.253	-1.696	-.629
17	-.168	.232	-.016	.246	.191	.506	.635	-1.654	-.645
18	-1.008	.171	-.112	.220	.079	.514	.679	.918	-.461
19	-.069	-.230	-.303	.154	-.095	.516	.707	-2.026	-.248
20	-.749	-.517	-.577	.054	-1.085	.456	.689	-1.722	-.216
21	.061	-.986	-.982	-.550	-1.286	-1.508	-1.434	-1.646	-.279
22	-.277	-1.226	-1.230	-.848	-1.452	-1.480	-.811	-1.510	-.369
23	.071	-1.049	-1.126	-1.204	-1.371	-1.402	-1.596	.438	-.489
24	-1.178	-.974	-.926	-1.388	-1.160	-1.342	-1.552	-1.334	-.583
25	.289	.100	-.170	-1.170	-1.118	-1.292	-1.504	.306	-.437
26	-1.217	-1.159	-.166	-1.018	-1.097	-1.254	-1.319	-1.290	-.162

TABLE 12 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	.173	.235	.408	.296	.310	.347	.419	.533	.495
2	.141	.307	.500	.356	.332	.375	.435	.580	.880
3	.032	.275	.662	.191	.294	.375	.435	.556	.657
4	-.074	.255	.890	.340	.209	.347	.439	.627	.339
5	-.101	.269	.834	.302	.081	.319	.437	.645	.184
6	-.125	.213	.600	.223	-.063	.272	.439	.568	.070
7	-.159	-.253	-.702	.097	-.765	.101	.402	-1.580	-.186
8	-.181	-.472	-1.016	-.308	-1.401	-1.480	.297	-1.773	-.100
9	-.004	-.972	-1.346	-.642	-1.545	-1.750	-1.612	-1.712	-.084
10	-.185	-1.327	-1.562	-.873	-1.259	-1.794	-1.719	-1.684	.148
11	-.376	-1.193	-1.622	-1.111	-1.136	-1.671	-1.748	-1.653	.086
12	-.642	-1.076	-1.336	-1.431	-1.121	-.831	-1.693	-1.611	.032
13	-.879	.361	.412	-1.302	.310	-1.494	-1.622	.795	.124
14	-1.026	.456	.490	-1.062	.326	-1.438	-1.563	.813	-.281
15	-1.272	.446	.442	.286	.330	.496	-1.506	-1.690	-.519
16	-.901	.440	.434	.308	.304	.512	-1.461	-1.759	-.645
17	.010	.410	.210	.316	.227	.526	.644	-1.708	-.663
18	-1.163	.311	.042	.276	.101	.528	.687	.927	-.507
19	.111	-.382	-.372	.193	-.091	.524	.713	-1.801	-.273
20	-.753	-.629	-.602	.068	-1.136	.444	.675	-1.773	-.228
21	.223	-1.102	-1.014	-.521	-1.423	-1.806	-1.610	-1.765	-.285
22	-.264	-1.456	-1.336	-.877	-1.702	-1.796	-.864	-1.637	-.377
23	.004	-1.301	-1.322	-1.322	-1.575	-1.724	-1.726	.398	-.497
24	-1.551	-1.225	-1.130	-1.505	-1.332	-1.671	-1.683	-1.594	-.601
25	.294	.104	-.184	-1.262	-1.269	-1.645	-1.648	.272	-.455
26	-1.598	-1.361	-.178	-1.062	-1.239	-1.603	-1.518	-1.578	-.184
				$\delta_r = 30°$					
1	.205	.351	.598	.412	.363	.382	.454	.555	.509
2	.227	.461	.684	.471	.383	.406	.466	.602	.905
3	.125	.445	.720	.272	.325	.398	.468	.573	.668
4	.028	.433	.848	.455	.224	.362	.468	.636	.342
5	.010	.421	.754	.404	.073	.332	.472	.642	.187
6	-.012	.321	.548	.276	-.085	.276	.452	.551	.072
7	-.032	-.409	-1.316	.113	-.796	.080	.417	-1.608	-.211
8	-.091	-.591	-1.672	-.298	-1.526	-1.552	.300	-1.795	-.082
9	-.167	-1.038	-1.732	-.670	-1.692	-1.794	-1.724	-1.750	-.050
10	-.268	-1.387	-1.860	-.913	-1.411	-1.830	-1.810	-1.724	.183
11	-.457	-1.317	-1.926	-1.169	-1.276	-1.730	-1.831	-1.703	.121
12	-.694	-1.224	-1.658	-1.521	-1.248	-.892	-1.800	-1.673	.076
13	-.918	.501	.590	-1.481	.357	-1.598	-1.758	.811	.145
14	-1.072	.625	.674	-1.209	.367	-1.544	-1.720	.823	-.358
15	-1.547	.633	.612	.362	.359	.524	-1.655	-1.709	-.543
16	-1.010	.619	.604	.390	.327	.538	-1.605	-1.752	-.658
17	.173	.553	.382	.388	.226	.546	.665	-1.717	-.664
18	-1.213	.397	.154	.338	.081	.546	.712	.937	-.485
19	.247	-.631	-.536	.223	-.135	.534	.732	-1.750	-.249
20	-.817	-.804	-.814	.087	-1.224	.450	.675	-1.780	-.205
21	.326	-1.200	-1.108	-.485	-1.510	-1.828	-1.679	-1.760	-.272
22	-.382	-1.547	-1.440	-.966	-1.780	-1.822	-.889	-1.673	-.356
23	-.008	-1.447	-1.488	-1.451	-1.736	-1.766	-1.734	.396	-.495
24	-1.592	-1.373	-1.306	-1.616	-1.530	-1.716	-1.714	-1.657	-.581
25	.286	.092	-.206	-1.372	-1.454	-1.698	-1.698	.270	-.447
26	-1.624	-1.485	-.196	-1.133	-1.423	-1.664	-1.639	-1.644	-.207
				$\delta_r = 40°$					
1	.178	.438	.685	.505	.403	.393	.463	.559	.513
2	.239	.580	.760	.581	.425	.407	.479	.598	.908
3	.176	.598	.795	.348	.362	.405	.475	.573	.673
4	.107	.592	.705	.561	.247	.367	.479	.646	.347
5	.126	.548	.555	.499	.091	.339	.473	.652	.198
6	.123	.414	.429	.346	-.063	.288	.469	.579	.082
7	.134	-.486	-1.427	.149	-1.006	.105	.429	-1.358	-.220
8	.043	-.675	-1.512	-.427	-1.344	-1.421	.317	-1.525	-.074
9	-.451	-1.000	-1.451	-.769	-1.399	-1.536	-1.527	-1.495	-.042
10	-.468	-1.225	-1.516	-.926	-1.229	-1.520	-1.587	-1.469	.190
11	-.632	-1.181	-1.488	-1.085	-1.126	-1.411	-1.569	-1.431	.134
12	-.777	-1.100	-1.339	-1.336	-1.099	-.742	-1.523	-1.374	.084
13	-.923	.618	.673	-1.400	.391	-1.296	-1.479	.803	.136
14	-1.010	.749	.754	-1.245	.403	-1.258	-1.441	.817	-.441
15	-1.591	.769	.744	.427	.395	.520	-1.383	-1.519	-.573
16	-.951	.755	.732	.455	.358	.534	-1.337	-1.575	-.671
17	.330	.651	.524	.447	.253	.542	.671	-1.531	-.669
18	-1.085	.464	.268	.388	.117	.538	.713	.936	-.477
19	.370	-.723	-.589	.264	-.083	.532	.739	-1.662	-.236
20	-.852	-.851	-.839	.113	-1.265	.460	.695	-1.571	-.202
21	.393	-1.153	-1.071	-.686	-1.423	-1.585	-1.511	-1.573	-.259
22	-.545	-1.359	-1.293	-.996	-1.464	-1.563	-.848	-1.437	-.347
23	.061	-1.293	-1.301	-1.264	-1.372	-1.522	-1.619	.431	-.475
24	-1.241	-1.231	-1.205	-1.417	-1.219	-1.480	-1.581	-1.342	-.569
25	.324	.133	-.228	-1.322	-1.168	-1.440	-1.551	.310	-.435
26	-1.277	-1.193	-.226	-1.133	-1.146	-1.399	-1.413	-1.312	-.220

TABLE 13

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.066	-.208	-1.857	-.203	.071	.218	.326	.474	.598
2	-.012	-.371	-2.642	-.151	.117	.263	.355	.513	.977
3	-.158	-.947	-1.410	-.163	.102	.261	.355	.493	.731
4	-.537	-.900	-.931	-.163	.073	.240	.351	.549	.398
5	-.707	-.912	-1.440	-.130	.010	.220	.347	.563	.240
6	-.699	-.804	-1.269	-.077	-.071	.193	.351	.538	.130
7	-.587	.263	.130	-.057	-.590	.086	.317	-.624	-.166
8	-.597	.022	-.135	-.276	-.663	-.708	.271	-.699	-.050
9	.301	-.402	-.448	-.416	-.649	-.737	-.674	-.682	-.035
10	.239	-.553	-.560	-.511	-.596	-.733	-.676	-.678	.023
11	-.033	-.539	-.573	-.577	-.557	-.694	-.670	-.663	-.058
12	-.309	-.525	-.463	-.605	-.542	-.386	-.653	-.649	-.101
13	-.479	-.304	-.813	-.523	.132	-.649	-.639	.736	-.012
14	-.541	-.731	-.989	-.429	.163	-.624	-.624	.784	-.048
15	-.552	-.973	-.910	-.033	.167	.425	-.615	-.688	-.170
16	-.608	-.855	-.794	.023	.157	.433	-.599	-.709	-.157
17	-.832	-1.000	-.699	.029	.165	.444	.590	-.696	-.060
18	-.558	-1.069	-.495	.040	.042	.444	.624	.894	.037
19	-.764	.157	-.015	.031	-.067	.446	.653	-.724	-.014
20	-.371	-.102	-.238	-.010	-.644	.404	.655	-.726	-.106
21	-.133	-.441	-.474	-.475	-.670	-.735	-.641	-.755	-.188
22	.172	-.553	-.535	-.563	-.680	-.723	-.378	-.663	-.273
23	.068	-.494	-.465	-.644	-.653	-.706	-.662	.405	-.420
24	-.614	-.480	-.370	-.653	-.609	-.688	-.651	-.642	-.489
25	.224		-.171	-.580	-.582	-.678	-.643	.264	-.362
26	-.625	-.580 .073	-.173	-.519	-.569	-.653	-.605	-.628	-.162
				$\delta_r = -30°$					
1	.102	-.202	-1.667	-.198	.076	.209	.338	.464	.593
2	.167	-.202	-2.311	-.196	.119	.248	.370	.503	.976
3	.051	-.430	-2.912	-.169	.108	.244	.374	.480	.737
4	-.127	-.633	-2.725	-.188	.070	.222	.366	.534	.399
5	-.296	-.694	-2.090	-.151	.000	.207	.364	.551	.244
6	-.427	-.692	-1.667	-.085	-.076	.169	.364	.522	.122
7	-.598	.283	.197	-.054	-.542	.063	.330	-.708	-.181
8	-.641	.145	-.050	-.033	-.716	-.734	.266	-.789	-.051
9	.292	-.340	-.458	-.297	-.757	-.787	-.838	-.766	-.045
10	.347	-.578	-.639	-.461	-.671	-.791	-.870	-.760	.016
11	.151	-.558	-.588	-.597	-.622	-.752	-.870	-.745	-.073
12	-.129	-.528	-.458	-.682	-.599	-.415	-.846	-.729	-.106
13	-.378	-.385	-.753	-.550	.133	-.693	-.826	.731	-.022
14	-.535	-.489	-.926	-.426	.168	-.673	-.804	.777	.026
15	-.633	-.713	-.723	-.039	.164	.398	-.772	-.766	-.132
16	-.633	-.927	-.940	.021	.159	.413	-.754	-.802	-.126
17	-.492	-.892	-.823	.027	.166	.421	.602	-.770	-.055
18	-.557	-.855	-.574	.039	.041	.423	.654	.885	.031
19	-.192	.263	.110	.029	-.084	.425	.678	-.804	-.024
20	-.208	.047	-.116	-.008	-.667	.378	.670	-.818	-.120
21	.051	-.413	-.492	-.297	-.738	-.789	-.802	-.827	-.200
22	.320	-.603	-.618	-.512	-.798	-.783	-.460	-.747	-.293
23	.049	-.517	-.510	-.721	-.775	-.756	-.828	.399	-.430
24	-.722	-.477	-.365	-.767	-.699	-.740	-.818	-.726	-.503
25	.218	.047	-.177	-.645	-.665	-.728	-.812	.259	-.371
26	-.737	-.684	-.171	-.547	-.644	-.715	-.770	-.704	-.171
				$\delta_r = -20°$					
1	.148	-.114	-.876	-.113	.120	.238	.350	.480	.588
2	.185	-.110	-1.122	-.066	.162	.287	.380	.532	.982
3	.068	-.269	-1.525	-.105	.152	.273	.382	.496	.741
4	-.105	-.420	-1.672	-.087	.094	.244	.380	.562	.408
5	-.235	-.438	-1.411	-.066	.006	.222	.372	.565	.250
6	-.340	-.422	-1.149	-.024	-.094	.181	.362	.512	.127
7	-.523	.339	.312	-.028	-.387	.053	.329	-.907	-.160
8	-.516	.371	.153	.109	-.774	-.994	.256	-1.018	-.044
9	.366	-.257	-.415	-.217	-1.052	-1.084	-1.051	-1.000	-.044
10	.412	-.671	-.694	-.445	-.914	-1.135	-1.067	-.984	.014
11	.175	-.651	-.640	-.652	-.796	-1.148	-1.072	-.978	-.057
12	-.093	-.554	-.428	-.831	-.760	-.587	-1.065	-.964	-.093
13	-.362	-.257	-.499	-.656	.170	-1.010	-1.039	.748	-.006
14	-.558	-.301	-.578	-.487	.206	-.953	-.994	.792	.042
15	-.733	-.436	-.430	.012	.208	.431	-.963	-.972	-.111
16	-.625	-.540	-.538	.068	.188	.450	-.947	-1.014	-.111
17	-.418	-.526	-.625	.078	.178	.452	.605	-.974	-.048
18	-.599	-.474	-.436	.074	.026	.450	.648	.899	.026
19	-.146	.295	.196	.058	-.122	.435	.673	-1.002	-.020
20	-.200	.257	.069	.010	-.721	.380	.659	-1.018	-.113
21	.068	-.357	-.462	-.097	-.852	-1.103	-.945	-1.050	-.202
22	.375	-.711	-.731	-.437	-1.000	-1.096	-.503	-.952	-.289
23	.004	-.612	-.625	-.789	-1.076	-1.066	-.967	.369	-.428
24	-.909	-.502	-.409	-.970	-.968	-1.023	-.955	-.968	-.505
25	.210	.032	-.165	-.813	-.872	-1.004	-.947	.220	-.372
26	-.932	-.936	-.165	-.652	-.844	-.984	-.926	-.970	-.158

TABLE 13 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.165	.006	-.144	-.006	.178	.273	.382	.504	.588
2	.167	.022	-.079	.055	.235	.311	.409	.553	.974
3	.057	-.110	-.302	-.004	.190	.307	.411	.518	.736
4	-.071	-.205	-.634	.045	.125	.271	.401	.587	.398
5	-.146	-.204	-.431	.029	.010	.246	.393	.571	.239
6	-.224	-.182	-.302	.021	-.097	.205	.378	.510	.117
7	-.356	.374	.370	-.008	-.128	.061	.335	-1.397	-.139
8	-.305	.145	.109	.096	-.721	-.854	.250	-1.623	-.064
9	.339	-.270	-.342	-.180	-1.298	-1.250	-1.295	-1.561	-.054
10	.250	-.693	-.737	-.381	-1.113	-1.348	-1.438	-1.482	.024
11	.079	-.634	-.711	-.617	-.866	-1.322	-1.462	-1.401	-.044
12	-.104	-.479	-.587	-.971	-.812	-.621	-1.434	-1.328	-.072
13	-.319	-.061	-.209	-.820	.219	-1.059	-1.378	.781	.040
14	-.514	-.057	-.209	-.594	.269	-.994	-1.278	.800	-.016
15	-.646	-.159	-.156	.084	.253	.467	-1.200	-1.632	-.129
16	-.449	-.215	-.217	.156	.227	.480	-1.151	-1.709	-.121
17	-.276	-.213	-.516	.176	.166	.482	.626	-1.666	-.056
18	-.575	-.196	-.466	.127	.038	.475	.675	.925	.020
19	-.071	.346	.202	.082	-.125	.465	.693	-2.125	-.030
20	-.177	.088	.016	.010	-.354	.400	.650	-1.755	-.119
21	.104	-.352	-.399	-.012	-.751	-1.475	-1.409	-1.747	-.203
22	.187	-.757	-.708	-.348	-1.190	-1.463	-.779	-1.506	-.294
23	-.006	-.640	-.686	-.773	-1.395	-1.393	-1.632	.346	-.431
24	-1.059	-.519	-.502	-1.139	-1.144	-1.311	-1.571	-1.275	-.519
25	.232	.035	-.144	-1.000	-.957	-1.236	-1.503	.221	-.386
26	-1.108	-.990	-.138	-.729	-.919	-1.189	-1.286	-1.196	-.141
				$\delta_r = 0°$					
1	.185	.093	.398	.123	.230	.321	.417	.552	.592
2	.212	.171	.507	.220	.282	.371	.452	.603	.973
3	.120	.083	.495	.107	.230	.355	.456	.563	.721
4	.024	.016	.224	.188	.141	.313	.442	.621	.395
5	-.024	.004	.293	.152	.020	.283	.428	.601	.250
6	-.083	-.020	.234	.101	-.119	.229	.403	.498	.126
7	-.200	.185	.180	.024	-.133	.060	.360	-1.734	-.128
8	-.208	-.028	-.103	.026	-.587	-.576	.255	-2.214	-.048
9	.248	-.286	-.426	-.194	-1.548	-1.452	-1.083	-2.179	-.041
10	.167	-.710	-.974	-.309	-1.310	-1.769	-1.648	-2.038	.043
11	.000	-.726	-1.111	-.525	-.990	-1.759	-1.912	-1.883	-.017
12	-.108	-.612	-.901	-1.091	-.927	-.773	-1.943	-1.774	-.027
13	-.261	.103	.002	-1.073	.260	-1.279	-1.859	.812	.085
14	-.438	.179	.077	-.772	.304	-1.189	-1.678	.815	-.035
15	-.668	.127	.121	.172	.290	.522	-1.501	-2.304	-.116
16	-.477	.080	.075	.240	.252	.532	-1.422	-2.411	-.103
17	-.106	.060	-.261	.246	.161	.530	.656	-2.355	-.050
18	-.542	.012	-.309	.198	.034	.520	.707	.954	.019
19	.059	.135	.036	.123	-.149	.492	.715	-3.210	-.023
20	-.173	-.101	-.123	.024	-.288	.420	.621	-2.498	-.112
21	.187	-.370	-.374	-.038	-.571	-2.002	-1.908	-2.641	-.195
22	.084	-.843	-.745	-.293	-1.296	-2.094	-1.051	-2.081	-.292
23	-.037	-.787	-.794	-.713	-1.704	-1.994	-2.306	.329	-.424
24	-1.271	-.700	-.653	-1.350	-1.302	-1.849	-2.198	-1.661	-.503
25	.244	.028	-.141	-1.265	-1.083	-1.689	-2.065	.202	-.364
26	-1.336	-1.151	-.139	-.887	-1.048	-1.610	-1.707	-1.488	-.120
				$\delta_r = 10°$					
1	.208	.191	.378	.236	.290	.346	.443	.575	.593
2	.274	.327	.498	.335	.353	.393	.493	.633	.974
3	.181	.272	.757	.203	.267	.380	.483	.581	.736
4	.089	.213	.696	.315	.173	.323	.475	.629	.391
5	.062	.187	.675	.265	.029	.280	.445	.611	.230
6	.018	.130	.486	.182	-.118	.219	.427	.466	.107
7	-.085	.081	-.173	.068	-.237	.023	.377	-1.105	-.141
8	-.143	-.132	-.596	-.081	-.469	-.521	.253	-2.845	-.071
9	.181	-.402	-.806	-.371	-1.604	-.779	-.631	-3.347	-.056
10	.111	-.693	-1.149	-.478	-1.965	-1.575	-.812	-2.994	.048
11	-.048	-.736	-1.555	-.576	-1.282	-2.636	-1.615	-2.526	-.008
12	-.159	-.646	-1.304	-1.041	-1.061	-1.176	-2.637	-2.313	-.008
13	-.278	.256	.233	-1.321	.308	-1.671	-2.878	.841	.113
14	-.411	.386	.335	-.985	.369	-1.491	-2.477	.810	-.050
15	-.760	.358	.359	.253	.347	.540	-1.906	-3.627	-.133
16	-.554	.319	.308	.329	.292	.542	-1.764	-3.865	-.119
17	.040	.274	-.010	.317	.184	.538	.687	-3.825	-.069
18	-.524	.185	-.110	.263	.039	.523	.735	.960	.008
19	.179	.002	-.139	.162	-.167	.491	.731	-5.335	-.036
20	-.236	-.293	-.390	.048	-.359	.386	.591	-4.313	-.131
21	.276	-.557	-.580	-.149	-.475	-1.634	-2.659	-5.093	-.210
22	.000	-.862	-.773	-.435	-.776	-2.804	-1.070	-3.052	-.308
23	-.079	-.846	-.910	-.582	-2.116	-3.047	-3.723	.284	-.444
24	-1.577	-.823	-.684	-1.251	-1.982	-2.699	-3.509	-2.095	-.522
25	.240	.031	-.133	-1.749	-1.300	-2.200	-3.028	.171	-.383
26	-1.683	-1.386	-.129	-1.180	-1.233	-2.043	-2.295	-1.841	-.135

TABLE 13 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	.233	.278	.419	.335	.338	.385	.470	.577	.587
2	.360	.455	.559	.432	.405	.433	.512	.648	.978
3	.289	.431	.744	.277	.306	.415	.506	.596	.739
4	.186	.378	.882	.422	.182	.351	.490	.654	.401
5	.154	.318	.778	.351	.014	.304	.472	.604	.253
6	.109	.223	.587	.227	-.162	.228	.438	.429	.130
7	.008	-.099	-.872	.068	-.344	.006	.371	-.918	-.156
8	-.085	-.274	-1.370	-.213	-.577	-.579	.226	-2.328	-.044
9	.077	-.559	-1.604	-.568	-1.514	-.607	-.661	-3.998	-.020
10	.115	-.885	-1.874	-.677	-2.421	-.972	-.704	-3.694	.080
11	-.053	-.976	-2.016	-.791	-1.605	-2.998	-.942	-2.962	.036
12	-.215	-.897	-1.354	-1.227	-1.249	-1.554	-2.377	-2.702	.048
13	-.358	.378	.427	-1.580	.350	-2.030	-3.468	.853	.150
14	-.492	.551	.541	-1.227	.411	-1.681	-3.379	.813	-.076
15	-1.225	.565	.541	.317	.383	.563	-2.292	-4.286	-.138
16	-.761	.509	.496	.388	.322	.577	-2.024	-4.179	-.116
17	.178	.427	.203	.382	.190	.563	.706	-4.787	-.066
18	-.646	.282	.035	.311	.020	.546	.770	.968	.016
19	.304	-.282	-.402	.183	-.219	.502	.754	-6.280	-.030
20	-.340	-.553	-.744	.034	-.476	.387	.571	-5.533	-.124
21	.389	-.813	-1.014	-.269	-.579	-.958	-3.107	-7.165	-.200
22	-.022	-1.123	-1.122	-.588	-.664	-2.351	-.744	-3.523	-.281
23	-.134	-1.074	-1.136	-.707	-2.028	-3.679	-4.339	.241	-.435
24	-1.874	-1.155	-.726	-1.323	-2.658	-3.472	-4.466	-2.416	-.509
25	.233	.008	-.169	-2.060	-1.581	-2.623	-3.595	.147	-.383
26	-2.010	-1.618	-.159	-1.424	-1.466	-2.337	-2.730	-2.109	-.144
				$\delta_r = 30°$					
1	.263	.343	.585	.424	.382	.417	.473	.604	.592
2	.425	.576	.705	.516	.444	.470	.529	.674	.964
3	.377	.586	.768	.349	.337	.447	.524	.625	.714
4	.285	.523	.838	.518	.197	.377	.504	.660	.374
5	.255	.436	.693	.439	.008	.320	.482	.619	.223
6	.206	.293	.503	.278	-.179	.235	.439	.414	.093
7	.118	-.277	-1.659	.088	-.422	-.008	.378	-.922	-.177
8	-.014	-.366	-2.271	-.286	-.622	-.617	.229	-2.142	-.078
9	.002	-.679	-2.595	-.696	-1.572	-.660	-.716	-4.198	-.054
10	.052	-1.107	-2.649	-.824	-2.536	-1.140	-.741	-3.971	.056
11	-.102	-1.527	-1.944	-.941	-1.753	-3.150	-1.031	-3.155	.026
12	-.259	-1.339	-1.447	-1.371	-1.347	-1.613	-2.580	-2.872	.050
13	-.411	.473	.569	-1.735	.380	-2.162	-3.622	.870	.129
14	-.567	.669	.699	-1.384	.434	-1.806	-3.476	.810	-.085
15	-1.527	.719	.691	.380	.416	.595	-2.431	-4.511	-.147
16	-.984	.657	.635	.453	.337	.595	-2.178	-4.142	-.141
17	.327	.531	.369	.449	.187	.577	.704	-5.126	-.085
18	-.743	.339	.142	.365	.020	.557	.769	.971	-.004
19	.445	-.622	-.657	.208	-.235	.512	.747	-6.534	-.052
20	-.387	-.774	-1.128	.041	-.544	.387	.553	-5.934	-.137
21	.489	-1.121	-1.393	-.322	-.602	-1.109	-3.239	-7.567	-.219
22	-.078	-1.638	-1.411	-.661	-.697	-2.664	-.814	-3.693	-.302
23	-.144	-1.418	-1.242	-.796	-2.060	-3.789	-4.553	.219	-.443
24	-1.940	-1.428	-.770	-1.443	-2.769	-3.528	-4.569	-2.565	-.515
25	.236	-.004	-.174	-2.163	-1.705	-2.694	-3.712	.130	-.380
26	-2.078	-1.711	-.172	-1.555	-1.550	-2.429	-2.812	-2.241	-.169
				$\delta_r = 40°$					
1	.213	.390	.666	.496	.424	.439	.487	.607	.577
2	.468	.642	.789	.588	.482	.490	.548	.672	.968
3	.451	.703	.841	.408	.367	.451	.542	.627	.728
4	.385	.640	.696	.608	.211	.376	.519	.658	.382
5	.360	.518	.469	.514	.010	.331	.487	.607	.213
6	.300	.341	.348	.332	-.175	.250	.450	.428	.089
7	.215	-.382	-2.213	.122	-.416	.006	.380	-1.170	-.197
8	.038	-.530	-3.119	-.352	-.661	-.612	.233	-3.037	-.082
9	-.198	-.744	-3.183	-.746	-1.841	-.852	-.753	-3.576	-.070
10	-.103	-1.632	-2.129	-.848	-2.339	-1.713	-.941	-3.242	.064
11	-.261	-1.508	-1.485	-.936	-1.661	-2.868	-1.900	-2.746	.042
12	-.447	-1.266	-1.266	-1.368	-1.355	-1.343	-2.953	-2.521	.050
13	-.607	.549	.650	-1.684	.410	-1.913	-3.200	.859	.093
14	-.771	.754	.777	-1.358	.470	-1.667	-2.832	.818	-.109
15	-2.051	.827	.801	.426	.436	.610	-2.209	-3.916	-.177
16	-1.259	.752	.740	.502	.359	.610	-2.041	-4.117	-.171
17	.443	.587	.461	.492	.205	.589	.710	-4.082	-.105
18	-.978	.376	.195	.404	.022	.559	.777	.971	-.018
19	.559	-.827	-.775	.236	-.235	.510	.750	-5.617	-.068
20	-.538	-.872	-1.453	.060	-.536	.392	.566	-4.590	-.151
21	.545	-1.415	-1.688	-.340	-.639	-1.781	-2.937	-5.289	-.241
22	-.247	-1.890	-1.400	-.672	-.898	-3.037	-1.284	-3.266	-.330
23	-.146	-1.358	-1.145	-.792	-2.357	-3.281	-4.072	.236	-.471
24	-1.800	-1.260	-.803	-1.502	-2.420	-2.935	-3.840	-2.283	-.553
25	.245	.020	-.185	-2.076	-1.631	-2.398	-3.344	.143	-.410
26	-1.929	-1.616	-.183	-1.530	-1.498	-2.219	-2.562	-2.037	-.195

TABLE 14

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.127	-.405	-1.581	-.201	.116	.282	.389	.533	.514
2	-.237	-.674	-1.510	-.154	.242	.357	.453	.605	.893
3	-.464	-.612	-.779	-.057	.188	.341	.446	.563	.654
4	-.564	-.538	-.540	-.018	.150	.294	.428	.598	.324
5	-.558	-.579	-1.496	-.008	.082	.255	.409	.563	.164
6	-.515	-.542	-1.751	.010	.018	.216	.383	.449	.034
7	-.591	.421	.277	.010	.034	.080	.319	-.557	-.182
8	-.558	.458	.340	.173	-.144	-.088	.239	-.977	-.150
9	.577	.281	.296	.207	-.608	-.486	-.307	-1.652	-.160
10	.386	.144	.061	.193	-.672	-.657	-.523	-1.879	-.174
11	.174	-.055	-.316	.110	-.464	-1.112	-.704	-1.672	-.206
12	.025	-.234	-.427	-.183	-.354	-.592	-1.041	-1.447	-.206
13	-.035	-.647	-.759	-.315	.190	-.924	-1.374	.783	-.101
14	-.055	-.764	-.692	-.244	.278	-.706	-1.438	.811	.115
15	-.119	-.571	-.569	-.020	.274	.508	-1.230	-2.365	-.049
16	-.315	-.507	-.508	.118	.234	.514	-.990	-1.383	-.109
17	-.581	-.624	-.605	.146	.170	.504	.636	-2.773	-.115
18	.070	-1.255	-.522	.128	.084	.478	.702	.918	-.142
19	-.640	.250	.245	.106	-.034	.441	.689	-3.359	-.170
20	.157	.335	.292	.081	-.018	.361	.603	-2.270	-.182
21	-.413	.288	.285	.083	-.128	-.704	-1.683	-6.801	-.261
22	.450	.154	.103	.091	-.482	-1.035	-.432	-1.918	-.342
23	.000	-.062	-.182	-.128	-.852	-1.514	-1.619	.291	-.478
24	-.795	-.255	-.265	-.425	-.854	-1.594	-2.315	-1.275	-.559
25	.225	.082	-.176	-.506	-.600	-1.427	-1.947	.191	-.427
26	-.955	-.649	-.172	-.331	-.518	-1.202	-1.447	-1.053	-.172
				$\delta_r = -30°$					
1	.091	-.220	-1.424	-.214	.102	.269	.391	.534	.508
2	.128	-.182	-1.956	-.475	.234	.338	.458	.601	.889
3	.051	-.275	-2.404	-.090	.182	.324	.456	.558	.662
4	-.010	-.427	-2.284	-.070	.126	.273	.429	.599	.320
5	-.067	-.495	-2.062	-.062	.064	.240	.415	.562	.160
6	-.126	-.575	-1.824	-.036	-.014	.194	.381	.444	.038
7	-.241	.369	.238	-.016	-.010	.061	.327	-.534	-.182
8	-.327	.403	.312	.136	-.208	-.134	.228	-.937	-.158
9	.471	.261	.276	.164	-.687	-.499	-.351	-1.657	-.158
10	.396	.122	.052	.134	-.727	-.648	-.585	-1.948	-.176
11	.245	-.088	-.262	.058	-.529	-1.159	-.778	-1.738	-.204
12	.166	-.263	-.332	-.222	-.419	-.619	-1.131	-1.502	-.206
13	.112	-.395	-.666	-.353	.188	-.988	-1.431	.776	-.093
14	.057	-.431	-.692	-.287	.275	-.762	-1.472	.806	.134
15	-.116	-.567	-.568	-.030	.273	.493	-1.282	-2.427	-.053
16	-.292	-.737	-.742	.104	.222	.489	-1.058	-1.270	-.119
17	-.221	-.794	-.708	.122	.158	.487	.643	-2.879	-.121
18	.061	-.808	-.572	.096	.066	.456	.714	.909	-.158
19	-.073	.269	.228	.078	-.060	.428	.692	-3.395	-.190
20	.197	.349	.288	.062	-.050	.342	.593	-2.147	-.192
21	.012	.287	.240	.060	-.194	-.705	-1.728	-6.704	-.273
22	.383	.130	.032	.060	-.551	-1.037	-.464	-1.964	-.362
23	-.016	-.082	-.220	-.154	-.920	-1.568	-1.766	.274	-.496
24	-.846	-.281	-.290	-.455	-.900	-1.676	-2.357	-1.327	-.575
25	.209	.066	-.164	-.549	-.663	-1.511	-1.990	.171	-.441
26	-1.014	-.721	-.164	-.385	-.575	-1.269	-1.500	-1.087	-.170
				$\delta_r = -20°$					
1	.126	-.099	-.756	-.118	.151	.289	.403	.531	.498
2	.125	-.073	-.900	-.148	.282	.378	.478	.605	.900
3	.045	-.145	-1.273	-.008	.218	.360	.476	.561	.667
4	-.016	-.222	-1.447	.041	.147	.301	.451	.589	.331
5	-.047	-.251	-1.339	.016	.055	.261	.421	.557	.171
6	-.083	-.283	-1.188	.016	-.024	.208	.391	.423	.034
7	-.178	.285	.242	.014	-.088	.050	.326	-.595	-.155
8	-.221	.307	.311	.071	-.214	-.188	.219	-.964	-.157
9	.397	.143	.248	.087	-.722	-.554	-.381	-1.802	-.159
10	.291	-.008	.072	.061	-.831	-.723	-.607	-2.224	-.159
11	.162	-.166	-.172	-.039	-.622	-1.295	-.802	-1.994	-.183
12	.089	-.259	-.196	-.333	-.492	-.695	-1.182	-1.709	-.167
13	.038	-.224	-.427	-.434	.214	-1.127	-1.589	.780	-.046
14	-.016	-.204	-.395	-.349	.306	-.855	-1.676	.802	.129
15	-.164	-.303	-.291	.024	.304	.521	-1.437	-2.780	-.056
16	-.277	-.380	-.375	.158	.249	.521	-1.158	-1.295	-.118
17	-.132	-.404	-.423	.178	.167	.509	.650	-3.329	-.118
18	-.043	-.404	-.351	.140	.065	.481	.727	.922	-.143
19	-.020	.214	.178	.097	-.080	.440	.658	-3.980	-.199
20	.087	.295	.234	.057	-.139	.345	.579	-2.269	-.185
21	.059	.164	.136	-.016	-.186	-.782	-1.891	-7.838	-.271
22	.273	.012	-.086	-.006	-.575	-1.111	-.468	-2.230	-.349
23	-.038	-.150	-.273	-.256	-.959	-1.725	-1.796	.248	-.504
24	-.957	-.261	-.279	-.542	-1.043	-1.879	-2.615	-1.511	-.576
25	.217	.059	-.160	-.657	-.761	-1.691	-2.196	.152	-.458
26	-1.164	-.834	-.156	-.477	-.649	-1.412	-1.644	-1.236	-.161

TABLE 14 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.126	-.028	-.227	-.008	.182	.314	.423	.557	.533
2	.172	.072	-.002	.153	.313	.398	.496	.641	.898
3	.108	.012	-.251	.086	.232	.380	.494	.602	.669
4	.034	-.056	-.458	.155	.148	.306	.466	.602	.329
5	.008	-.072	-.404	.118	.030	.260	.444	.559	.152
6	-.020	-.070	-.333	.084	-.054	.198	.399	.402	.052
7	-.104	.163	.203	.040	-.174	.018	.331	-.612	-.142
8	-.122	.161	.255	-.010	-.301	-.244	.216	-.951	-.140
9	.266	-.010	.143	-.012	-.778	-.606	-.411	-1.816	-.142
10	.222	-.149	-.082	-.068	-1.024	-.786	-.605	-2.724	-.140
11	.104	-.267	-.337	-.181	-.790	-1.534	-.726	-2.463	-.142
12	.024	-.287	-.323	-.452	-.615	-.846	-1.044	-2.067	-.112
13	-.046	-.080	-.197	-.532	.232	-1.390	-1.756	.800	.024
14	-.092	.024	-.112	-.442	.331	-1.018	-2.121	.818	.138
15	-.230	-.030	-.052	.090	.299	.552	-1.863	-3.467	-.054
16	-.254	-.096	-.118	.227	.265	.552	-1.405	-1.331	-.118
17	-.060	-.112	-.255	.243	.158	.526	.655	-3.967	-.120
18	-.112	-.112	-.243	.189	.042	.502	.742	.947	-.150
19	.052	.131	.076	.127	-.106	.452	.681	-5.118	-.170
20	.012	.159	.000	.046	-.192	.338	.565	-2.310	-.168
21	.144	-.004	-.008	-.094	-.248	-.826	-2.351	-8.812	-.246
22	.200	-.163	-.233	-.090	-.583	-1.136	-.431	-2.735	-.331
23	-.080	-.285	-.329	-.347	-1.006	-1.972	-1.536	.224	-.471
24	-1.120	-.315	-.317	-.637	-1.343	-2.254	-3.252	-1.808	-.543
25	.214	.032	-.167	-.773	-.966	-2.032	-2.817	.129	-.419
26	-1.424	-.986	-.167	-.598	-.782	-1.650	-2.024	-1.473	-.142
				$\delta_r = 0°$					
1	.093	.042	.271	.088	.220	.339	.429	.554	.512
2	.198	.224	.558	.312	.352	.434	.517	.657	.888
3	.162	.206	.513	.177	.263	.416	.517	.598	.653
4	.101	.132	.261	.273	.149	.327	.479	.608	.314
5	.075	.100	.289	.212	.032	.279	.447	.552	.153
6	.051	.060	.226	.134	-.085	.204	.398	.349	.018
7	-.040	.068	.030	.053	-.226	-.006	.322	-.622	-.155
8	-.073	.066	-.016	-.102	-.402	-.289	.175	-.933	-.169
9	.144	-.108	-.232	-.130	-.861	-.598	-.447	-1.420	-.171
10	.148	-.301	-.513	-.206	-1.236	-.699	-.652	-3.370	-.151
11	.045	-.379	-.812	-.324	-.998	-1.455	-.742	-3.584	-.151
12	-.043	-.327	-.857	-.603	-.745	-1.089	-.922	-2.715	-.112
13	-.113	.052	-.018	-.660	.269	-2.133	-1.628	.796	.057
14	-.168	.240	.125	-.570	.366	-1.291	-2.777	.792	.108
15	-.322	.236	.216	.153	.341	.572	-2.761	-5.010	-.108
16	-.275	.176	.137	.293	.287	.572	-1.839	-1.331	-.180
17	.018	.130	-.174	.314	.168	.547	.664	-3.410	-.182
18	-.215	.080	-.202	.224	.036	.509	.761	.901	-.204
19	.154	.022	-.079	.126	-.143	.453	.714	-7.822	-.239
20	-.085	.014	-.093	.047	-.246	.323	.485	-2.384	-.243
21	.200	-.164	-.214	-.175	-.337	-.743	-3.125	-9.055	-.314
22	.093	-.401	-.309	-.187	-.630	-.899	-.463	-3.673	-.394
23	-.146	-.419	-.467	-.462	-1.032	-1.523	-1.410	.139	-.533
24	-1.460	-.381	-.438	-.731	-1.705	-2.966	-3.390	-2.295	-.598
25	.198	.034	-.154	-.904	-1.242	-3.117	-4.296	.044	-.467
26	-2.034	-1.220	-.147	-.725	-.919	-2.206	-2.648	-1.873	-.165
				$\delta_r = 10°$					
1	.117	.087	.324	.181	.254	.343	.451	.553	.507
2	.256	.321	.664	.387	.417	.448	.541	.666	.890
3	.252	.331	.834	.260	.307	.400	.541	.609	.648
4	.179	.266	.711	.381	.163	.317	.498	.613	.318
5	.157	.220	.633	.294	.016	.265	.453	.539	.165
6	.121	.142	.463	.183	-.126	.183	.401	.320	.041
7	.024	-.051	-.309	.055	-.325	-.050	.329	-.672	-.171
8	-.012	-.106	-.494	-.193	-.478	-.343	.156	-.963	-.153
9	.097	-.303	-.830	-.270	-.972	-.687	-.508	-1.318	-.147
10	.097	-.476	-1.076	-.373	-1.386	-.769	-.745	-3.508	-.116
11	.012	-.518	-1.371	-.485	-1.157	-1.462	-.815	-4.436	-.110
12	-.089	-.459	-1.664	-.771	-.882	-1.203	-.967	-3.170	-.053
13	-.157	.150	.172	-.844	.289	-2.544	-1.611	.797	.124
14	-.211	.382	.336	-.738	.402	-1.500	-3.091	.797	.102
15	-.406	.429	.420	.213	.386	.584	-3.284	-5.859	-.108
16	-.338	.354	.336	.343	.303	.560	-2.082	-1.355	-.167
17	.119	.272	.010	.365	.150	.526	.669	-3.393	-.153
18	-.306	.171	-.121	.284	.002	.492	.767	.922	-.157
19	.260	-.159	-.256	.146	-.211	.434	.708	-8.473	-.214
20	-.169	-.250	-.338	.024	-.358	.287	.477	-2.539	-.185
21	.258	-.476	-.543	-.270	-.394	-.807	-3.523	-9.338	-.267
22	.012	-.679	-.621	-.314	-.728	-.930	-.531	-4.184	-.352
23	-.221	-.642	-.723	-.570	-1.126	-1.375	-1.447	.135	-.491
24	-1.654	-.591	-.637	-.886	-1.909	-3.151	-3.576	-2.588	-.568
25	.163	-.030	-.182	-1.081	-1.476	-3.878	-4.973	.045	-.442
26	-2.539	-1.549	-.186	-.888	-1.081	-2.574	-2.998	-2.113	-.153

TABLE 14 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	.105	.139	.329	.246	.291	.367	.457	.561	.516
2	.275	.402	.539	.420	.456	.491	.561	.682	.886
3	.299	.505	.829	.297	.321	.451	.561	.620	.659
4	.259	.422	.868	.467	.171	.353	.520	.614	.327
5	.226	.337	.717	.374	.002	.281	.470	.524	.175
6	.184	.220	.518	.208	-.151	.192	.419	.304	.049
7	.099	-.143	-.766	.038	-.380	-.056	.324	-.704	-.171
8	-.006	-.182	-1.236	-.315	-.538	-.373	.148	-.992	-.140
9	.014	-.382	-1.693	-.420	-1.054	-.719	-.522	-1.280	-.130
10	.012	-.600	-1.795	-.523	-1.542	-.818	-.725	-3.539	-.096
11	-.020	-.646	-1.996	-.677	-1.319	-1.531	-.806	-5.057	-.071
12	-.115	-.580	-2.419	-.998	-1.000	-1.287	-.927	-3.482	.004
13	-.202	.240	.341	-1.075	.321	-2.780	-1.441	.798	.175
14	-.273	.487	.494	-.949	.438	-1.615	-3.065	.798	.093
15	-.804	.612	.593	.251	.422	.619	-3.731	-6.263	-.120
16	-.505	.539	.459	.402	.329	.617	-2.265	-1.408	-.173
17	.261	.420	.211	.426	.177	.577	.672	-3.747	-.150
18	-.380	.271	-.024	.331	.004	.523	.791	.904	-.157
19	.394	-.295	-.421	.172	-.211	.449	.725	-8.718	-.201
20	-.194	-.414	-.634	.018	-.367	.305	.472	-2.682	-.179
21	.335	-.657	-.904	-.345	-.424	-.818	-3.804	-9.498	-.254
22	-.030	-.857	-.923	-.376	-.755	-.926	-.518	-4.502	-.335
23	-.222	-.786	-.955	-.707	-1.163	-1.375	-1.391	.108	-.472
24	-1.770	-.679	-.819	-1.020	-2.052	-3.349	-3.283	-2.837	-.553
25	.180	-.022	-.179	-1.279	-1.631	-4.283	-5.522	.010	-.421
26	-2.782	-1.683	-.179	-1.063	-1.179	-2.721	-3.249	-2.318	-.165
				$\delta_r = 30°$					
1	.071	.182	.447	.313	.311	.375	.453	.557	.533
2	.262	.455	.601	.460	.481	.513	.564	.693	.912
3	.353	.617	.796	.359	.347	.477	.562	.631	.655
4	.323	.543	.842	.540	.182	.367	.525	.631	.321
5	.300	.423	.652	.442	.008	.292	.473	.539	.150
6	.266	.259	.468	.253	-.162	.197	.400	.285	.014
7	.171	-.287	-1.000	.064	-.384	-.063	.315	-.749	-.198
8	.018	-.303	-1.848	-.365	-.608	-.408	.139	-1.032	-.160
9	-.109	-.497	-2.277	-.482	-1.119	-.765	-.560	-1.401	-.160
10	-.173	-1.074	-1.933	-.592	-1.620	-.866	-.786	-3.856	-.104
11	-.234	-1.244	-1.476	-.767	-1.372	-1.647	-.859	-4.876	-.076
12	-.302	-.970	-1.213	-1.066	-1.048	-1.341	-.986	-3.453	.012
13	-.381	.329	.439	-1.137	.333	-2.838	-1.594	.788	.150
14	-.438	.567	.601	-1.000	.455	-1.665	-3.220	.786	.066
15	-1.038	.743	.717	.293	.455	.633	-3.671	-6.168	-.156
16	-.800	.671	.652	.432	.347	.635	-2.289	-1.479	-.214
17	.371	.505	.352	.486	.180	.590	.663	-4.166	-.192
18	-.546	.313	.111	.371	.004	.538	.802	.892	-.194
19	.486	-.383	-.534	.195	-.216	.462	.733	-8.772	-.214
20	-.353	-.425	-.879	.026	-.362	.302	.465	-2.864	-.218
21	.353	-.794	-1.162	-.386	-.491	-.862	-3.766	-9.954	-.299
22	-.242	-1.279	-1.038	-.408	-.802	-.984	-.537	-4.493	-.379
23	-.248	-1.012	-.921	-.779	-1.236	-1.529	-1.451	.068	-.517
24	-1.831	-.962	-.589	-1.072	-2.139	-3.554	-3.677	-2.864	-.595
25	.167	-.022	-.192	-1.347	-1.671	-4.221	-5.349	-.020	-.451
26	-2.815	-1.719	-.188	-1.129	-1.214	-2.761	-3.206	-2.353	-.208
				$\delta_r = 40°$					
1	.036	.199	.530	.378	.331	.387	.453	.556	.515
2	.249	.463	.673	.521	.494	.518	.567	.681	.890
3	.372	.726	.861	.396	.363	.476	.567	.625	.643
4	.362	.634	.731	.612	.198	.373	.522	.619	.315
5	.326	.489	.508	.517	.022	.292	.474	.542	.150
6	.264	.316	.349	.334	-.129	.206	.415	.288	.020
7	.171	-.563	-1.002	.111	-.383	-.044	.322	-.748	-.204
8	.006	-.583	-1.602	-.366	-.589	-.413	.152	-1.050	-.164
9	-.159	-.954	-1.042	-.455	-1.073	-.762	-.557	-1.631	-.148
10	-.262	-.948	-.839	-.541	-1.532	-.871	-.777	-3.855	-.092
11	-.481	-.813	-.789	-.670	-1.284	-1.804	-.848	-4.038	-.058
12	-.654	-.757	-.737	-.930	-.996	-1.325	-1.067	-3.089	.026
13	-.831	.386	.518	-.954	.327	-2.498	-1.970	.780	.128
14	-.946	.602	.663	-.841	.444	-1.562	-3.172	.796	.050
15	-1.443	.825	.825	.338	.444	.625	-3.018	-5.425	-.148
16	-.833	.746	.737	.437	.349	.615	-2.057	-1.516	-.210
17	.419	.543	.458	.509	.187	.579	.654	-4.337	-.186
18	-1.143	.352	.213	.408	.012	.522	.775	.891	-.190
19	.537	-.517	-.600	.227	-.206	.452	.719	-8.109	-.212
20	-.847	-.684	-.882	.038	-.363	.298	.457	-2.911	-.204
21	.338	-.998	-.910	-.390	-.470	-.901	-3.338	-9.399	-.277
22	-.571	-.849	-.693	-.414	-.796	-1.069	-.557	-4.040	-.357
23	-.233	-.773	-.588	-.748	-1.232	-1.958	-1.611	.087	-.495
24	-1.710	-.753	-.480	-1.022	-2.024	-3.474	-4.298	-2.629	-.575
25	.173	-.024	-.199	-1.262	-1.577	-3.462	-4.350	.010	-.441
26	-2.376	-1.608	-.201	-1.044	-1.167	-2.510	-2.862	-2.179	-.204

TABLE 15

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.150	-.417	-1.716	-.306	.031	.009	.037	-.025	.269
2	-.046	-.423	-2.420	-.010	.344	.501	.432	.290	.655
3	-.142	-.706	-1.123	.042	.245	.440	.555	.545	.452
4	-.388	-.592	-.599	.081	.176	.332	.510	.611	.138
5	-.537	-.584	-1.405	.056	.127	.283	.461	.512	-.006
6	-.539	-.552	-1.750	.056	.077	.222	.406	.309	-.129
7	-.591	.706	.514	.081	.046	.068	.313	-.342	-.220
8	-.543	.844	.683	.139	-.052	-.104	.191	-.409	-.339
9	.562	.598	.399	.108	-.234	-.241	-.244	-.591	-.359
10	.612	.307	-.017	.067	-.286	-.351	-.291	-.844	-.402
11	.501	.080	-.405	.000	-.228	-.662	-.364	-1.572	-.343
12	.315	-.091	-.512	-.056	-.153	-.480	-.514	-3.255	-.296
13	.148	-.638	-.929	-.056	.058	-.918	-.744	.088	-.251
14	.050	-.693	-.731	-.054	.332	-.708	-1.051	.183	.133
15	.008	-.719	-.720	-.064	.363	.351	-1.432	-3.615	-.068
16	-.144	-.550	-.539	.214	.284	.605	-1.387	-.459	-.269
17	-.631	-.594	-.534	.247	.201	.569	.063	-.677	-.287
18	.209	-1.083	-.459	.189	.124	.499	.250	.054	-.062
19	-.583	.607	.311	.152	.029	.417	.539	-1.210	-.172
20	.447	.863	.420	.135	-.002	.281	.535	-.471	-.271
21	-.192	.592	.217	.087	-.073	-.324	-3.104	-.058	-.380
22	.708	.197	-.069	.067	-.243	-.419	-.295	-3.683	-.483
23	-.040	-.066	-.230	.010	-.427	-.655	-.523	.130	-.618
24	-.762	-.279	-.257	-.058	-.544	-.930	-.758	-1.924	-.712
25	.209	.097	-.219	-.098	-.454	-1.509	-2.467	.068	-.612
26	-1.154	-.579	-.219	-.066	-.334	-2.194	-2.498	-1.311	-.214
				$\delta_r = -30°$					
1	.017	-.264	-1.230	-.291	.061	.100	.014	-.012	.293
2	.148	-.137	-1.700	.054	.365	.482	.415	.338	.665
3	.195	-.153	-2.142	.045	.252	.434	.553	.564	.453
4	.135	-.303	-2.045	.093	.176	.326	.502	.619	.130
5	.050	-.388	-1.678	.037	.107	.266	.429	.521	-.030
6	-.033	-.448	-1.622	.033	.055	.198	.374	.285	-.164
7	-.158	.643	.366	.033	.018	.037	.280	-.381	-.200
8	-.198	.716	.481	.145	-.107	-.214	.146	-.463	-.351
9	.461	.496	.201	.155	-.324	-.345	-.344	-.646	-.357
10	.520	.218	-.135	.099	-.375	-.459	-.382	-.939	-.393
11	.464	-.021	-.357	.019	-.307	-.817	-.445	-1.791	-.323
12	.362	-.151	-.384	-.087	-.223	-.545	-.616	-3.396	-.261
13	.250	-.465	-.708	-.109	.080	-1.087	-.872	.098	-.184
14	.148	-.363	-.536	-.085	.355	-.827	-1.203	.180	.164
15	.015	-.427	-.427	-.091	.373	.434	-1.620	-3.859	-.100
16	-.123	-.608	-.602	.217	.295	.617	-1.563	-.510	-.309
17	-.098	-.654	-.567	.258	.191	.566	.049	-.750	-.313
18	.175	-.647	-.450	.194	.109	.491	.220	.061	-.088
19	.081	.554	.212	.134	-.004	.414	.482	-1.445	-.172
20	.405	.743	.240	.099	-.066	.268	.502	-.527	-.279
21	.073	.473	.053	.072	-.133	-.410	-3.291	-.131	-.389
22	.582	.085	-.136	.037	-.303	-.524	-.335	-3.861	-.495
23	-.069	-.124	-.214	-.079	-.486	-.790	-.612	.100	-.627
24	-.836	-.274	-.218	-.174	-.633	-1.089	-.860	-2.033	-.709
25	.195	.073	-.199	-.205	-.533	-1.823	-2.681	.049	-.605
26	-1.252	-.678	-.197	-.153	-.408	-2.331	-2.685	-1.424	-.196
				$\delta_r = -20°$					
1	-.019	-.150	-.679	-.189	.118	.117	.069	.018	.272
2	.097	-.029	-.731	.125	.417	.507	.467	.381	.675
3	.145	-.033	-1.004	.117	.282	.456	.565	.580	.479
4	.081	-.142	-1.178	.193	.181	.338	.510	.619	.168
5	.017	-.202	-1.079	.115	.087	.276	.441	.502	.002
6	-.046	-.222	-.923	.080	.019	.202	.375	.251	-.129
7	-.149	.525	.269	.043	-.056	.016	.282	-.432	-.164
8	-.180	.512	.327	.096	-.223	-.270	.135	-.543	-.337
9	.332	.245	.075	.082	-.472	-.392	-.398	-.749	-.342
10	.371	-.019	-.113	.006	-.520	-.505	-.420	-1.043	-.366
11	.293	-.144	-.158	-.078	-.437	-.887	-.494	-2.039	-.290
12	.180	-.193	-.121	-.182	-.336	-.573	-.680	-3.660	-.209
13	.062	-.274	-.453	-.191	.140	-1.206	-.949	.097	-.078
14	-.029	-.142	-.255	-.164	.402	-.938	-1.298	.179	.143
15	-.154	-.171	-.182	-.021	.416	.447	-1.790	-4.525	-.121
16	-.222	-.280	-.305	.270	.313	.629	-1.739	-.591	-.337
17	-.083	-.317	-.311	.313	.190	.594	.063	-.872	-.331
18	-.052	-.329	-.263	.227	.083	.509	.245	.064	-.078
19	.068	.477	.218	.141	-.043	.414	.535	-1.914	-.172
20	.153	.545	.261	.082	-.157	.256	.506	-.621	-.258
21	.052	.235	.030	.016	-.235	-.437	-3.469	-.228	-.358
22	.386	-.068	-.129	-.057	-.419	-.559	-.325	-4.072	-.468
23	-.143	-.148	-.174	-.205	-.631	-.827	-.669	.051	-.603
24	-1.008	-.193	-.156	-.326	-.783	-1.130	-.933	-2.222	-.699
25	.174	.053	-.176	-.354	-.672	-1.868	-3.094	.008	-.611
26	-1.558	-.835	-.170	-.273	-.528	-2.606	-2.869	-1.584	-.159

[redacted]

TABLE 15 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	-.016	-.115	-.268	-.083	.146	.180	.122	.024	.270
2	.120	.079	.056	.228	.445	.535	.524	.417	.669
3	.222	.135	-.021	.208	.297	.479	.598	.597	.470
4	.163	.010	-.270	.315	.172	.343	.533	.615	.152
5	.104	-.044	-.272	.208	.064	.275	.453	.486	-.002
6	.031	-.065	-.239	.125	-.023	.184	.378	.200	-.134
7	-.088	.321	.294	.060	-.145	-.018	.274	-.504	-.163
8	-.120	.282	.294	.040	-.338	-.358	.108	-.635	-.346
9	.208	.024	-.010	-.018	-.613	-.505	-.472	-.857	-.344
10	.275	-.208	-.177	-.115	-.686	-.640	-.508	-1.181	-.356
11	.210	-.242	-.228	-.216	-.578	-1.059	-.587	-2.294	-.268
12	.110	-.220	-.175	-.337	-.455	-.673	-.787	-4.183	-.156
13	-.014	-.157	-.214	-.319	.178	-1.455	-1.075	.079	-.008
14	-.114	.052	-.019	-.270	.414	-1.152	-1.474	.147	.108
15	-.255	.097	.113	.040	.424	.493	-2.059	-4.952	-.169
16	-.240	-.010	.014	.321	.316	.650	-2.047	-.685	-.358
17	-.016	-.069	-.169	.381	.174	.598	.043	-1.004	-.344
18	-.151	-.093	-.163	.282	.053	.505	.252	.054	-.093
19	.167	.298	.165	.155	-.088	.406	.533	-2.268	-.179
20	.069	.284	.189	.073	-.250	.222	.478	-.726	-.270
21	.124	-.018	-.056	-.063	-.326	-.531	-3.827	-.387	-.368
22	.255	-.244	-.185	-.151	-.535	-.665	-.344	-4.413	-.478
23	-.187	-.230	-.202	-.343	-.777	-.950	-.750	-.008	-.618
24	-1.149	-.214	-.187	-.486	-.975	-1.273	-1.051	-2.563	-.701
25	.153	.014	-.150	-.500	-.836	-2.125	-3.496	-.048	-.616
26	-1.731	-1.020	-.144	-.407	-.658	-3.145	-3.276	-1.857	-.161
				$\delta_r = 0°$					
1	.004	-.057	.081	-.002	.214	.255	.248	.105	.270
2	.120	.124	.470	.301	.495	.543	.576	.525	.678
3	.237	.303	.556	.251	.331	.484	.607	.628	.479
4	.212	.185	.348	.387	.180	.351	.531	.618	.153
5	.161	.098	.301	.273	.050	.269	.459	.475	-.008
6	.086	.033	.194	.151	-.057	.180	.373	.157	-.139
7	-.041	.120	.155	.049	-.220	-.051	.262	-.553	-.155
8	-.098	.069	.039	-.049	-.416	-.424	.078	-.704	-.336
9	.106	-.185	-.340	-.177	-.729	-.569	-.525	-.956	-.342
10	.163	-.375	-.532	-.316	-.800	-.702	-.563	-1.294	-.340
11	.110	-.338	-.678	-.438	-.699	-1.175	-.648	-2.606	-.233
12	.016	-.301	-.705	-.550	-.568	-.733	-.871	-4.612	-.101
13	-.106	-.051	-.077	-.505	.250	-1.620	-1.174	.062	.078
14	-.202	.163	.130	-.444	.463	-1.275	-1.602	.173	.097
15	-.329	.340	.334	.092	.463	.567	-2.309	-5.487	-.207
16	-.249	.238	.230	.336	.345	.665	-2.332	-.757	-.410
17	.069	.134	-.096	.420	.186	.592	.072	-1.109	-.398
18	-.267	.055	-.153	.303	.048	.498	.393	.048	-.103
19	.251	.102	.016	.159	-.121	.400	.617	-2.795	-.189
20	-.065	.026	-.037	.045	-.315	.210	.459	-.809	-.278
21	.112	-.277	-.279	-.157	-.388	-.575	-4.125	-.606	-.382
22	.112	-.438	-.332	-.289	-.600	-.725	-.363	-4.750	-.487
23	-.233	-.373	-.326	-.521	-.869	-1.016	-.836	-.066	-.632
24	-1.296	-.352	-.291	-.666	-1.095	-1.365	-1.141	-2.883	-.718
25	.137	-.010	-.141	-.684	-.954	-2.333	-4.166	-.085	-.626
26	-1.980	-1.181	-.134	-.560	-.764	-3.425	-3.582	-2.085	-.151
				$\delta_r = 10°$					
1	.038	-.004	.141	.068	.187	.276	.293	.182	.300
2	.142	.162	.475	.283	.493	.560	.582	.586	.669
3	.263	.442	.828	.289	.330	.497	.615	.627	.461
4	.277	.325	.697	.482	.155	.353	.543	.598	.153
5	.235	.208	.554	.353	-.006	.258	.469	.449	.000
6	.156	.103	.370	.186	-.128	.154	.381	.110	-.128
7	.000	-.040	-.267	.041	-.326	-.095	.258	-.602	-.157
8	-.089	-.109	-.576	-.138	-.593	-.501	.051	-.771	-.331
9	.043	-.349	-.937	-.285	-.945	-.669	-.596	-1.029	-.326
10	.105	-.529	-.998	-.431	-1.047	-.822	-.621	-1.376	-.308
11	.069	-.475	-1.343	-.581	-.902	-1.339	-.719	-2.837	-.198
12	-.030	-.434	-1.568	-.717	-.733	-.846	-.959	-4.825	-.050
13	-.158	.020	.057	-.670	.242	-1.862	-1.285	.067	.141
14	-.271	.220	.200	-.590	.450	-1.471	-1.756	.235	.072
15	-.496	.513	.495	.113	.473	.600	-2.531	-5.871	-.213
16	-.354	.412	.400	.334	.332	.671	-2.527	-.825	-.391
17	.180	.265	.040	.480	.149	.596	.111	-1.196	-.368
18	-.389	.139	-.115	.344	-.012	.497	.500	.041	-.089
19	.350	-.115	-.198	.167	-.204	.377	.656	-3.398	-.174
20	-.162	-.251	-.372	.029	-.424	.178	.416	-.894	-.262
21	.150	-.556	-.659	-.223	-.519	-.657	-4.375	-.892	-.366
22	.018	-.665	-.616	-.363	-.780	-.819	-.400	-5.016	-.477
23	-.296	-.576	-.594	-.633	-1.081	-1.146	-.912	-.114	-.603
24	-1.472	-.527	-.511	-.790	-1.342	-1.513	-1.223	-3.063	-.678
25	.123	-.042	-.170	-.810	-1.161	-2.586	-4.617	-.137	-.579
26	-2.269	-1.352	-.164	-.674	-.947	-3.860	-3.803	-2.247	-.155

TABLE 15 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration,

$\psi = 21°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	.063	.043	.192	.114	.165	.267	.332	.271	.279
2	.145	.189	.346	.265	.502	.562	.595	.682	.658
3	.270	.557	.868	.289	.348	.505	.621	.666	.456
4	.336	.480	.854	.521	.150	.350	.548	.607	.139
5	.328	.313	.639	.403	-.022	.246	.462	.443	-.016
6	.254	.157	.408	.202	-.167	.141	.361	.073	-.143
7	.084	-.136	-.831	.020	-.388	-.141	.232	-.630	-.191
8	-.072	-.175	-1.414	-.242	-.679	-.578	.020	-.820	-.350
9	-.002	-.435	-1.699	-.461	-1.067	-.762	-.666	-1.103	-.340
10	.027	-.715	-1.487	-.665	-1.161	-.927	-.707	-1.472	-.308
11	.031	-.665	-1.720	-.846	-1.008	-1.499	-.815	-3.164	-.175
12	-.064	-.602	-2.161	-.968	-.835	-.958	-1.081	-5.000	-.010
13	-.203	.102	.196	-.906	.224	-2.059	-1.432	.083	.193
14	-.338	.252	.299	-.792	.443	-1.618	-1.945	.356	.041
15	-.902	.650	.625	.128	.490	.640	-2.819	-6.346	-.273
16	-.590	.569	.550	.297	.339	.665	-2.764	-.879	-.466
17	.324	.380	.200	.499	.144	.586	.198	-1.217	-.422
18	-.500	.197	-.033	.361	-.031	.483	.623	.049	-.120
19	.441	-.266	-.396	.158	-.236	.366	.707	-4.150	-.189
20	-.188	-.439	-.680	.000	-.472	.150	.375	-.957	-.293
21	.172	-.768	-1.006	-.323	-.581	-.737	-4.697	-1.061	-.395
22	-.020	-.868	-.841	-.505	-.858	-.913	-.450	-5.377	-.501
23	-.340	-.766	-.792	-.814	-1.169	-1.257	-1.004	-.160	-.635
24	-1.590	-.671	-.680	-.998	-1.457	-1.648	-1.340	-3.229	-.713
25	.116	-.060	-.201	-.976	-1.279	-2.794	-5.014	-.193	-.609
26	-2.425	-1.452	-.195	-.824	-1.038	-4.024	-4.037	-2.454	-.202
				$\delta_r = 30°$					
1	-.016	.042	.286	.157	.176	.264	.324	.294	.295
2	.088	.196	.369	.270	.503	.565	.602	.656	.671
3	.267	.639	.778	.306	.364	.506	.628	.652	.459
4	.390	.589	.853	.569	.166	.344	.553	.594	.146
5	.408	.395	.594	.466	-.025	.246	.465	.429	-.010
6	.335	.190	.400	.250	-.170	.134	.366	.052	-.130
7	.151	-.240	-1.065	.060	-.415	-.144	.237	-.670	-.186
8	-.066	-.277	-1.929	-.276	-.716	-.579	.010	-.875	-.343
9	-.106	-.647	-2.159	-.506	-1.106	-.760	-.696	-1.145	-.329
10	-.163	-1.132	-1.429	-.698	-1.227	-.931	-.738	-1.517	-.289
11	-.261	-1.026	-1.175	-.865	-1.068	-1.506	-.847	-3.362	-.152
12	-.418	-.836	-1.002	-.966	-.879	-.957	-1.111	-5.083	.018
13	-.631	.146	.271	-.873	.213	-2.075	-1.471	.113	.188
14	-.753	.291	.378	-.776	.407	-1.638	-2.002	.421	.032
15	-1.588	.735	.718	.149	.499	.652	-2.915	-6.684	-.259
16	-.990	.691	.676	.290	.354	.669	-2.843	-.938	-.439
17	.438	.455	.345	.522	.145	.589	.219	-1.330	-.403
18	-.873	.232	.094	.387	-.031	.482	.670	.042	-.112
19	.514	-.277	-.486	.185	-.249	.352	.716	-4.861	-.186
20	-.536	-.445	-.882	.012	-.503	.138	.346	-1.034	-.275
21	.131	-.938	-1.196	-.347	-.616	-.732	-4.847	-1.328	-.381
22	-.235	-1.220	-.882	-.530	-.896	-.919	-.465	-5.581	-.491
23	-.367	-.896	-.718	-.821	-1.237	-1.260	-1.042	-.193	-.623
24	-1.645	-.884	-.443	-.994	-1.544	-1.648	-1.376	-3.340	-.705
25	.102	-.086	-.186	-1.020	-1.339	-2.858	-5.644	-.197	-.603
26	-2.512	-1.527	-.180	-.865	-1.084	-4.150	-4.169	-2.469	-.186
				$\delta_r = 40°$					
1	-.056	.066	.346	.205	.187	.242	.314	.288	.295
2	.050	.199	.433	.314	.520	.575	.608	.706	.669
3	.257	.693	.831	.316	.398	.521	.634	.663	.463
4	.405	.701	.755	.619	.203	.361	.558	.609	.148
5	.437	.484	.459	.527	.010	.261	.474	.436	-.012
6	.373	.273	.280	.300	-.139	.148	.376	.047	-.142
7	.218	-.394	-1.032	.087	-.396	-.124	.248	-.677	-.206
8	.012	-.528	-1.288	-.278	-.673	-.569	.027	-.878	-.343
9	-.164	-1.066	-.899	-.465	-1.044	-.735	-.647	-1.162	-.333
10	-.281	-.962	-.815	-.631	-1.157	-.890	-.682	-1.548	-.295
11	-.429	-.811	-.819	-.769	-1.010	-1.449	-.786	-3.452	-.146
12	-.631	-.759	-.819	-.876	-.841	-.928	-1.057	-5.081	.024
13	-.808	.223	.328	-.803	.187	-1.996	-1.394	.136	.170
14	-.878	.333	.425	-.722	.398	-1.579	-1.877	.469	.004
15	-1.397	.807	.769	.162	.508	.637	-2.725	-6.755	-.283
16	-.770	.791	.767	.288	.371	.669	-2.733	-.953	-.439
17	.533	.536	.437	.550	.181	.591	.187	-1.290	-.399
18	-1.078	.307	.173	.424	.000	.485	.632	.075	-.124
19	.557	-.390	-.523	.205	-.207	.367	.729	-5.002	-.210
20	-.920	-.743	-.795	.030	-.476	.144	.388	-1.049	-.285
21	.124	-.970	-.859	-.341	-.584	-.713	-4.653	-1.519	-.395
22	-.437	-.851	-.688	-.505	-.849	-.886	-.437	-5.639	-.503
23	-.337	-.767	-.555	-.783	-1.179	-1.226	-.971	-.183	-.637
24	-1.595	-.745	-.423	-.957	-1.478	-1.611	-1.275	-3.318	-.707
25	.111	-.073	-.177	-1.026	-1.276	-2.897	-5.210	-.170	-.619
26	-2.445	-1.472	-.177	-.858	-1.035	-4.101	-4.063	-2.381	-.187

[redacted]

TABLE 16

Pressure coefficients on the vertical fin. Standard tail configuration.

ψ=30°; α=-20°; δ_e=0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				δ_r=-40°					
1	-.602	-.666	-2.597	-.261	.121	.335	.455	.632	-.076
2	-.692	-.707	-3.893	-.269	.173	.383	.486	.682	.728
3	-.826	-1.208	-3.125	-.287	.200	.393	.499	.636	.672
4	-.893	-1.443	-2.619	-.249	.163	.389	.507	.731	.417
5	-.967	-1.361	-2.529	-.188	.066	.373	.514	.725	.270
6	-1.013	-1.008	-2.630	-.111	-.056	.335	.512	.597	.155
7	-1.010	-.649	-.650	-.101	-.946	.188	.482	-.897	-.351
8	-.967	-.843	-.813	-.822	-1.037	-1.019	.386	-.972	-.025
9	-.503	-1.070	-1.019	-.935	-1.041	-1.048	-1.013	-.951	-.002
10	-.807	-1.089	-1.097	-1.008	-.975	-1.043	-1.019	-.953	.295
11	-.990	-.975	-1.035	-1.059	-.942	-1.000	-1.006	-.949	.183
12	-1.054	-.907	-.947	-1.063	-.930	-.617	-.977	-.935	-.002
13	-1.080	-.682	-1.130	-.947	.222	-.961	-.954	.901	-.056
14	-1.073	-.899	-1.442	-.862	.253	-.952	-.946	.858	-.447
15	-.973	-1.638	-1.638	-.018	.284	.574	-.927	-.929	-.678
16	-.946	-1.755	-1.708	.022	.284	.594	-.914	-.943	-.790
17	-1.153	-1.880	-1.158	.057	.235	.609	.749	-.937	-.864
18	-1.065	-1.526	-.961	.089	.136	.617	.781	.974	-.493
19	-.945	-.726	-.743	.089	-.035	.605	.785	-.935	-.464
20	-1.069	-.868	-.887	.032	-.986	.522	.727	-.939	-.509
21	-.677	-1.062	-1.021	-.885	-1.027	-.996	-.906	-.941	-.351
22	-.816	-1.078	-1.018	-.976	-1.051	-.981	-.587	-.913	-.412
23	.141	-.950	-.911	-1.059	-1.025	-.961	-.921	.462	-.610
24	-.939	-.882	-.827	-1.071	-.959	-.948	-.914	-.937	-.862
25	.382	.159	-.352	-.978	-.944	-.950	-.906	.362	-.932
26	-.946	-.967	-.352	-.929	-.928	-.938	-.896	-.941	-.344
				δ_r=-30°					
1	-.510	-.713	-2.156	-.251	.150	.348	.474	.636	-.073
2	-.636	-.688	-2.794	-.226	.208	.399	.503	.675	.750
3	-.780	-.829	-3.289	-.267	.227	.411	.513	.638	.669
4	-.875	-.898	-3.133	-.212	.186	.413	.518	.726	.425
5	-.852	-.910	-2.272	-.146	.077	.389	.520	.724	.281
6	-.839	-.802	-1.757	-.082	-.043	.352	.518	.595	.167
7	-.862	-.668	-.644	-.080	-.955	.208	.491	-.868	-.343
8	-.784	-.841	-.792	-.842	-1.051	-1.038	.410	-.944	-.014
9	-.436	-1.016	-.990	-.944	-1.049	-1.055	-1.023	-.928	.008
10	-.743	-1.008	-1.025	-1.014	-.972	-1.047	-1.021	-.918	.301
11	-.959	-.874	-.923	-1.051	-.939	-.986	-1.004	-.918	.187
12	-1.053	-.807	-.830	-1.033	-.931	-.617	-.977	-.905	.004
13	-1.080	-.794	-.988	-.920	.249	-.953	-.955	.891	-.047
14	-1.056	-.866	-1.193	-.848	.279	-.945	-.946	.842	-.376
15	-.922	-1.035	-1.056	-.008	.300	.591	-.944	-.909	-.640
16	-.840	-1.132	-1.152	.043	.304	.615	-.936	-.924	-.781
17	-.872	-1.159	-.969	.076	.257	.636	.759	-.912	-.833
18	-1.066	-1.163	-.794	.109	.154	.634	.794	.961	-.470
19	-.776	-.739	-.744	.103	-.030	.619	.798	-.918	-.441
20	-1.064	-.864	-.881	.041	-1.000	.545	.730	-.916	-.516
21	-.605	-1.018	-1.002	-.912	-1.042	-.998	-.903	-.926	-.350
22	-.755	-1.002	-.992	-.984	-1.063	-.980	-.584	-.893	-.400
23	.142	-.861	-.861	-1.043	-1.032	-.966	-.924	.459	-.593
24	-.944	-.796	-.767	-1.039	-.962	-.949	-.920	-.911	-.846
25	.379	.183	-.341	-.951	-.947	-.943	-.913	.360	-.935
26	-.946	-.921	-.339	-.899	-.937	-.937	-.899	-.918	-.343
				δ_r=-20°					
1	-.484	-.558	-1.260	-.159	.171	.363	.488	.634	-.055
2	-.568	-.568	-1.484	-.480	.227	.414	.520	.680	.733
3	-.683	-.645	-1.789	-.194	.243	.422	.528	.643	.670
4	-.761	-.653	-1.875	-.111	.194	.414	.536	.731	.417
5	-.718	-.584	-1.576	-.065	.084	.386	.532	.719	.271
6	-.679	-.528	-1.363	-.024	-.045	.345	.532	.596	.156
7	-.681	-.620	-.707	-.048	-.963	.153	.494	-.893	-.346
8	-.623	-.829	-.842	-.859	-1.049	-1.053	.368	-.963	-.034
9	-.482	-1.058	-.994	-.960	-1.035	-1.073	-1.069	-.965	-.016
10	-.706	-1.038	-.959	-1.024	-.969	-1.073	-1.073	-.957	.291
11	-.897	-.853	-.842	-1.058	-.945	-1.008	-1.059	-.947	.180
12	-.979	-.803	-.783	-1.032	-.929	-.629	-1.026	-.940	-.008
13	-.990	-.641	-.736	-.917	.267	-.959	-1.008	.862	-.034
14	-.957	-.655	-.822	-.861	.296	-.943	-.992	.836	-.370
15	-.846	-.729	-.691	.044	.318	.582	-.953	-.938	-.660
16	-.739	-.727	-.701	.089	.316	.614	-.927	-.949	-.796
17	-.700	-.675	-.713	.123	.255	.618	.773	-.914	-.848
18	-.982	-.620	-.641	.149	.149	.622	.802	.977	-.470
19	-.646	-.699	-.781	.127	-.027	.610	.804	-.918	-.441
20	-.998	-.867	-.922	.050	-.998	.516	.708	-.926	-.510
21	-.547	-1.064	-1.018	-.915	-1.041	-1.020	-.966	-.957	-.362
22	-.763	-1.034	-.969	-.994	-1.057	-1.006	-.628	-.920	-.423
23	.146	-.857	-.824	-1.063	-1.018	-.986	-.990	.450	-.597
24	-.932	-.807	-.750	-1.046	-.969	-.971	-.982	-.936	-.868
25	.399	.177	-.346	-.960	-.947	-.973	-.978	.357	-.925
26	-.934	-.978	-.340	-.913	-.939	-.959	-.960	-.942	-.350

[redacted]

TABLE 16 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi=30°$; $\alpha=-20°$; $\delta_e=0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r=-10°$					
		-.399	-.336	-.054	.215	.375	.508	.655	-.071
2		-.372	-.292	-.026	.267	.420	.534	.704	.750
3		-.399	-.511	-.094	.273	.425	.545	.661	.677
4		-.364	-.746	.014	.219	.422	.553	.749	.427
5		-.286	-.481	.052	.099	.392	.551	.741	.278
6		-.249	-.366	.060	-.035	.353	.543	.600	.169
7		-.698	-.797	.004	-.969	.175	.504	-.920	-.356
8		-.854	-.905	-.906	-1.074	-1.057	.413	-1.000	-.010
9		-.998	-1.000	-1.004	-1.041	-1.092	-1.091	-.988	.014
10		-.946	-.950	-1.062	-.985	-1.088	-1.103	-.980	.305
11		-.831	-.807	-1.076	-.963	-1.027	-1.093	-.975	.193
12		-.780	-.817	-1.020	-.959	-.633	-1.059	-.965	.010
13		-.381	-.419	-.948	.288	-.990	-1.038	.904	-.049
14		-.346	-.435	-.914	.321	-.975	-1.028	.857	-.411
15		-.364	-.376	.106	.337	.592	-1.014	-.963	-.683
16		-.329	-.340	.154	.335	.622	-1.000	-.980	-.783
17		-.265	-.594	.182	.267	.633	.779	-.971	-.843
18		-.239	-.535	.198	.157	.633	.812	.973	-.492
19		-.768	-.851	.164	-.021	.614	.808	-.971	-.524
20		-.899	-.958	.068	-1.006	.527	.704	-.975	-.528
21		-1.012	-1.038	-.954	-1.060	-1.051	-.994	-.990	-.356
22		-.953	-1.085	-1.038	-1.087	-1.035	-.642	-.955	-.409
23		-.831	-1.000	-1.090	-1.043	-1.014	-1.018	.461	-.608
24		-.802	-.968	-1.046	-.990	-1.006	-1.004	-.973	-.868
25		.183	-.342	-.976	-.973	-1.000	-1.002	.371	-.941
26		-.965	-.338	-.952	-.957	-.990	-.988	-.969	-.352
				$\delta_r=0°$					
1	-.345	-.209	.366	.080	.279	.417	.532	.665	-.078
2	-.376	-.156	.378	.150	.326	.450	.555	.726	.724
3	-.476	-.161	.376	.014	.322	.458	.563	.667	.665
4	-.528	-.124	.185	.162	.255	.442	.563	.730	.421
5	-.466	-.049	.287	.175	.119	.415	.569	.730	.280
6	-.412	-.033	.215	.156	-.024	.365	.553	.583	.172
7	-.400	-.707	-.846	.070	-.994	.194	.514	-.977	-.339
8	-.361	-.864	-.949	-.889	-1.105	-1.096	.417	-1.065	-.010
9	-.604	-1.014	-1.043	-1.000	-1.075	-1.153	-1.091	-1.047	.014
10	-.737	-.970	-.976	-1.064	-1.012	-1.151	-1.109	-1.037	.317
11	-.912	-.858	-.844	-1.090	-.998	-1.086	-1.101	-1.033	.211
12	-1.002	-.801	-.799	-1.031	-.994	-.654	-1.071	-1.023	.029
13	-1.006	-.108	-.136	-.955	.340	-1.045	-1.045	.910	-.037
14	-.964	-.049	-.077	-.928	.368	-1.039	-1.026	.861	-.487
15	-.964	-.045	-.055	.197	.387	.617	-1.026	-1.012	-.679
16	-.763	-.008	-.022	.240	.370	.633	-1.022	-1.035	-.781
17	-.343	.033	-.220	.269	.294	.648	.781	-1.025	-.841
18	-1.016	.022	-.250	.267	.172	.642	.820	.975	-.479
19	-.321	-.789	-.876	.203	-.018	.631	.808	-1.023	-.444
20	-1.022	-.923	-.982	.105	-1.034	.542	.702	-1.025	-.530
21	-.279	-1.033	-1.089	-.940	-1.091	-1.112	-1.000	-1.037	-.348
22	-.795	-.976	-1.120	-1.039	-1.113	-1.096	-.628	-.998	-.401
23	.125	-.868	-1.128	-1.107	-1.077	-1.069	-1.030	.446	-.597
24	-1.044	-.825	-1.006	-1.057	-1.022	-1.049	-1.010	-1.023	-.853
25	.402	.187	-.335	-.981	-1.008	-1.045	-1.010	.350	-.933
26	-1.054	-1.008	-.333	-.953	-1.002	-1.037	-.994	-1.025	-.339
				$\delta_r=10°$					
1	-.236	-.026	.247	.205	.336	.449	.542	.688	-.066
2	-.250	.053	.311	.261	.385	.488	.569	.735	.730
3	-.327	.061	.771	.106	.359	.488	.575	.680	.674
4	-.358	.098	.733	.287	.281	.476	.577	.743	.422
5	-.295	.157	.711	.285	.137	.441	.573	.727	.276
6	-.248	.141	.542	.237	-.020	.388	.558	.583	.174
7	-.224	-.709	-.839	.122	-.984	.209	.515	-.992	-.336
8	-.208	-.853	-.948	-.916	-1.121	-1.075	.407	-1.074	-.020
9	-.614	-1.002	-1.038	-1.042	-1.094	-1.134	-1.098	-1.062	.004
10	-.721	-.972	-1.006	-1.118	-1.027	-1.138	-1.121	-1.051	.316
11	-.867	-.870	-.880	-1.153	-1.016	-1.085	-1.117	-1.049	.218
12	-.949	-.819	-.819	-1.104	-1.010	-.654	-1.086	-1.037	.042
13	-.956	.124	.161	-1.022	.387	-1.047	-1.067	.912	-.030
14	-.921	.206	.249	-.988	.414	-1.039	-1.047	.854	-.562
15	-1.042	.228	.239	.273	.420	.642	-1.039	-1.019	-.700
16	-.739	.263	.279	.311	.404	.657	-1.023	-1.047	-.786
17	-.125	.279	.094	.337	.316	.665	.789	-1.023	-.860
18	-.984	.222	-.008	.323	.184	.661	.824	.981	-.488
19	-.121	-.786	-.855	.249	-.016	.638	.812	-1.023	-.458
20	-.974	-.912	-.962	.131	-1.020	.547	.703	-1.039	-.530
21	-.101	-1.033	-1.058	-.964	-1.100	-1.106	-1.008	-1.039	-.360
22	-.770	-.990	-1.116	-1.080	-1.141	-1.100	-.644	-1.006	-.406
23	.143	-.882	-1.129	-1.173	-1.098	-1.079	-1.043	.437	-.600
24	-1.018	-.839	-1.008	-1.139	-1.041	-1.051	-1.023	-1.039	-.866
25	.424	.196	-.315	-1.056	-1.027	-1.055	-1.020	.353	-.930
26	-1.022	-1.018	-.313	-1.024	-1.023	-1.043	-1.008	-1.041	-.334

TABLE 16 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = -20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	-.165	.108	.365	.315	.388	.471	.571	.684	-.064
2	-.155	.218	.463	.376	.425	.509	.603	.733	.759
3	-.204	.252	.678	.194	.400	.509	.603	.676	.685
4	-.230	.296	.902	.398	.316	.483	.603	.749	.430
5	-.161	.332	.843	.380	.165	.455	.593	.731	.285
6	-.114	.280	.629	.305	.010	.392	.581	.589	.171
7	-.090	-.794	-.886	.166	-.976	.194	.536	-.951	-.351
8	-.112	-.886	-.998	-.903	-1.111	-1.051	.413	-1.043	-.022
9	-.743	-1.006	-1.071	-1.012	-1.085	-1.103	-1.060	-1.024	.000
10	-.750	-.984	-1.045	-1.061	-1.038	-1.103	-1.081	-1.016	.317
11	-.870	-.904	-.933	-1.073	-1.022	-1.051	-1.077	-1.014	.221
12	-.931	-.848	-.857	-1.030	-1.012	-.648	-1.052	-1.006	.052
13	-.951	.286	.376	-.974	.402	-1.016	-1.036	.914	-.028
14	-.921	.416	.463	-.954	.435	-1.012	-1.020	.859	-.641
15	-1.177	.444	.418	.343	.453	.657	-1.000	-.996	-.713
16	-.780	.472	.445	.386	.431	.669	-.986	-1.018	-.781
17	.043	.458	.320	.400	.340	.667	.804	-1.000	-.855
18	-1.016	.364	.159	.372	.207	.669	.837	.974	-.486
19	.024	-.848	-.882	.285	.006	.636	.819	-1.000	-.492
20	-.976	-.948	-.986	.154	-1.014	.529	.694	-1.006	-.558
21	.026	-1.028	-1.075	-.943	-1.089	-1.081	-.984	-1.014	-.365
22	-.811	-1.000	-1.133	-1.036	-1.125	-1.075	-.619	-.980	-.404
23	.130	-.912	-1.220	-1.089	-1.091	-1.053	-1.010	.454	-.604
24	-1.024	-.878	-1.067	-1.055	-1.044	-1.038	-.994	-1.008	-.875
25	.417	.200	-.347	-.998	-1.030	-1.024	-.992	.363	-.942
26	-1.031	-1.032	-.337	-.968	-1.014	-1.020	-.982	-1.012	-.351
				$\delta_r = 30°$					
1	-.068	.252	.579	.430	.430	.493	.582	.707	-.045
2	-.024	.393	.680	.487	.473	.523	.608	.754	.744
3	-.048	.452	.751	.277	.434	.521	.616	.701	.682
4	-.056	.484	.883	.507	.332	.491	.612	.764	.434
5	.006	.496	.814	.477	.176	.456	.606	.754	.292
6	.052	.409	.654	.374	.012	.395	.594	.651	.178
7	.086	-.827	-.929	.210	-.957	.210	.544	-.902	-.349
8	.042	-.877	-1.018	-.905	-1.070	-.998	.432	-.990	-.030
9	-.824	-.938	-1.036	-1.004	-1.043	-1.039	-1.008	-.978	-.008
10	-.758	-.911	-1.036	-1.050	-1.002	-1.045	-1.030	-.972	.316
11	-.838	-.855	-1.004	-1.061	-.984	-1.014	-1.030	-.970	.219
12	-.884	-.821	-.909	-1.020	-.979	-.633	-1.014	-.962	.037
13	-.898	.454	.567	-.978	.451	-.974	-1.000	.936	-.028
14	-.874	.595	.670	-.962	.477	-.972	-.992	.872	-.649
15	-1.154	.643	.611	.412	.480	.648	-.974	-.952	-.714
16	-.764	.665	.630	.455	.449	.668	-.964	-.968	-.783
17	.238	.609	.500	.463	.350	.676	.814	-.958	-.848
18	-.970	.484	.294	.428	.213	.664	.844	.984	-.479
19	.220	-.865	-.903	.329	.004	.633	.828	-.964	-.485
20	-.926	-.921	-.998	.188	-.988	.544	.704	-.968	-.538
21	.184	-.960	-1.034	-.933	-1.051	-1.022	-.956	-.986	-.363
22	-.816	-.942	-1.121	-1.026	-1.088	-1.016	-.622	-.942	-.418
23	.156	-.877	-1.322	-1.067	-1.061	-.994	-.972	.457	-.590
24	-.972	-.847	-1.148	-1.032	-1.014	-.988	-.968	-.962	-.870
25	.439	.230	-.358	-.988	-1.000	-.984	-.964	.373	-.921
26	-.976	-.968	-.354	-.962	-.986	-.978	-.950	-.966	-.361
				$\delta_r = 40°$					
1	.040	.385	.693	.533	.485	.521	.595	.721	-.082
2	.106	.549	.780	.616	.517	.552	.621	.747	.709
3	.092	.615	.830	.354	.470	.543	.619	.694	.657
4	.102	.638	.782	.606	.360	.515	.619	.757	.421
5	.160	.615	.643	.565	.200	.475	.605	.725	.279
6	.198	.498	.511	.431	.033	.424	.591	.597	.174
7	.234	-.844	-.924	.231	-.919	.224	.545	-.887	-.363
8	.158	-.866	-.974	-.885	-.992	-.954	.427	-.962	-.016
9	-.866	-.905	-.974	-.966	-.972	-.990	-.998	-.953	.002
10	-.804	-.887	-1.000	-.996	-.947	-.982	-1.022	-.949	.329
11	-.842	-.842	-1.052	-1.008	-.933	-.964	-1.024	-.951	.240
12	-.866	-.802	-.946	-.970	-.929	-.616	-.994	-.937	.060
13	-.874	.597	.679	-.920	.489	-.933	-.984	.915	-.054
14	-.852	.735	.772	-.920	.515	-.929	-.978	.866	-.645
15	-1.036	.796	.784	.483	.511	.677	-.960	-.935	-.695
16	-.754	.791	.770	.517	.472	.687	-.938	-.951	-.752
17	.411	.708	.605	.527	.373	.685	.808	-.941	-.804
18	-.970	.538	.367	.479	.228	.679	.838	.974	-.467
19	.393	-.868	-.884	.362	.022	.646	.828	-.939	-.503
20	-.906	-.905	-.964	.185	-.937	.552	.701	-.941	-.527
21	.349	-.929	-.972	-.903	-.978	-.964	-.946	-.955	-.353
22	-.828	-.917	-1.068	-.984	-.994	-.964	-.627	-.923	-.407
23	.150	-.866	-1.345	-1.020	-.969	-.947	-.966	.455	-.585
24	-.962	-.840	-1.176	-.990	-.945	-.943	-.948	-.935	-.860
25	.447	.239	-.367	-.950	-.935	-.939	-.952	.374	-.928
26	-.966	-.937	-.365	-.911	-.931	-.935	-.940	-.945	-.365

TABLE 17

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.420	-.611	-2.308	-.251	.125	.317	.455	.635	.127
2	-.473	-.641	-3.612	-.222	.194	.379	.507	.700	.930
3	-.604	-1.206	-2.598	-.236	.183	.375	.505	.647	.845
4	-.725	-1.385	-2.187	-.204	.125	.349	.503	.708	.567
5	-.857	-1.325	-2.298	-.168	.012	.325	.487	.681	.410
6	-.931	-.958	-2.507	-.116	-.113	.283	.473	.556	.282
7	-.929	-.581	-.481	-.120	-.877	.118	.425	-.819	-.306
8	-.908	-.621	-.559	-.739	-.952	-.928	.304	-.887	.060
9	-.353	-.845	-.779	-.798	-.956	-.950	-.936	-.865	.054
10	-.425	-.909	-.889	-.852	-.883	-.946	-.940	-.867	.199
11	-.645	-.843	-.885	-.914	-.843	-.894	-.928	-.855	.076
12	-.804	-.808	-.811	-.922	-.825	-.555	-.901	-.847	-.074
13	-.900	-.595	-1.024	-.816	.208	-.844	-.885	.895	-.082
14	-.920	-.855	-1.296	-.727	.266	-.832	-.865	.863	-.217
15	-.869	-1.577	-1.509	-.018	.274	.575	-.835	-.847	-.636
16	-.867	-1.619	-1.559	.066	.254	.587	-.803	-.859	-.793
17	-1.094	-1.774	-1.054	.080	.181	.591	.746	-.851	-.755
18	-.929	-1.405	-.863	.082	.079	.579	.795	.984	-.521
19	-.824	-.661	-.586	.054	-.101	.553	.783	-.851	-.091
20	-.851	-.673	-.654	-.010	-.909	.467	.670	-.855	-.205
21	-.533	-.843	-.799	-.812	-.944	-.902	-.847	-.855	-.239
22	-.516	-.891	-.825	-.862	-.966	-.886	-.557	-.837	-.316
23	.067	-.810	-.751	-.928	-.950	-.864	-.863	.413	-.501
24	-.818	-.764	-.660	-.934	-.877	-.850	-.859	-.837	-.753
25	.312	.121	-.308	-.846	-.845	-.846	-.851	.304	-.799
26	-.833		-.308	-.780	-.827	-.834	-.835	-.835	-.306
				$\delta_r = -30°$					
1	-.279	-.476	-1.755	-.206	.152	.342	.479	.616	.129
2	-.297	-.482	-2.438	-.175	.228	.406	.527	.668	.928
3	-.504	-.696	-3.029	-.196	.217	.402	.529	.634	.849
4	-.687	-.802	-2.946	-.147	.156	.372	.521	.676	.571
5	-.727	-.810	-2.103	-.120	.045	.340	.508	.650	.411
6	-.751	-.755	-1.570	-.061	-.089	.284	.492	.513	.282
7	-.817	-.291	-.317	-.073	-.866	.113	.445	-.980	-.297
8	-.745	-.427	-.471	-.618	-1.039	-1.060	.342	-1.054	.063
9	-.135	-.885	-.887	-.767	-1.085	-1.153	-1.045	-1.040	.059
10	-.283	-1.012	-.971	-.886	-.947	-1.155	-1.068	-1.016	.215
11	-.578	-.860	-.827	-.996	-.884	-1.044	-1.049	-1.010	.088
12	-.829	-.745	-.663	-1.012	-.870	-.610	-1.000	-.996	-.049
13	-.962	-.569	-.811	-.849	.240	-.966	-.963	.847	-.055
14	-.986	-.704	-.984	-.727	.295	-.944	-.941	.831	-.131
15	-.900	-.913	-.914	.004	.305	.594	-.926	-1.002	-.603
16	-.785	-1.024	-1.027	.096	.287	.606	-.914	-1.022	-.759
17	-.789	-1.004	-.860	.108	.207	.602	.752	-.982	-.728
18	-.996	-1.020	-.652	.110	.091	.583	.793	.970	-.493
19	-.629	-.423	-.449	.076	-.085	.557	.789	-.988	-.082
20	-.863	-.532	-.611	.006	-.947	.467	.668	-.996	-.202
21	-.363	-.917	-.912	-.759	-1.037	-1.099	-.922	-1.028	-.223
22	-.359	-1.016	-.959	-.876	-1.118	-1.062	-.588	-.978	-.297
23	.058	-.828	-.768	-1.037	-1.063	-1.016	-.959	.350	-.476
24	-.906	-.715	-.609	-1.051	-.943	-.982	-.945	-.988	-.728
25	.329	.101	-.298	-.912	-.911	-.980	-.938	.241	-.791
26	-.918	-.921	-.298	-.822	-.892	-.966	-.914	-.982	-.294
				$\delta_r = -20°$					
1	-.072	-.276	-.968	-.115	.191	.359	.486	.634	.119
2	-.195	-.303	-1.214	-.089	.273	.424	.539	.709	.923
3	-.412	-.478	-1.615	-.117	.245	.418	.537	.650	.853
4	-.606	-.543	-1.794	-.046	.165	.391	.529	.715	.573
5	-.648	-.476	-1.476	-.034	.034	.350	.514	.661	.407
6	-.646	-.431	-1.085	-.012	-.116	.293	.492	.506	.284
7	-.646	-.067	-.256	-.046	-.787	.096	.432	-1.150	-.292
8	-.553	-.335	-.437	-.386	-1.231	-1.154	.303	-1.254	.048
9	.058	-.925	-.956	-.705	-1.390	-1.365	-1.277	-1.191	.034
10	-.221	-1.071	-1.048	-.970	-1.141	-1.379	-1.338	-1.156	.196
11	-.571	-.795	-.823	-1.172	-1.030	-1.230	-1.340	-1.144	.081
12	-.869	-.616	-.621	-1.232	-1.012	-.662	-1.266	-1.126	-.054
13	-1.038	-.378	-.569	-.949	.267	-1.086	-1.188	.902	-.032
14	-1.050	-.419	-.651	-.780	.331	-1.057	-1.139	.850	-.151
15	-.841	-.567	-.599	.063	.333	.600	-1.100	-1.136	-.581
16	-.636	-.598	-.629	.150	.307	.609	-1.068	-1.163	-.722
17	-.664	-.555	-.687	.166	.211	.604	.754	-1.152	-.732
18	-1.042	-.504	-.548	.158	.080	.594	.803	.982	-.524
19	-.501	-.197	-.341	.109	-.127	.557	.779	-1.152	-.107
20	-.897	-.390	-.544	.014	-1.004	.459	.637	-1.157	-.202
21	-.231	-.963	-.992	-.549	-1.211	-1.297	-1.098	-1.177	-.242
22	-.274	-1.100	-1.065	-.877	-1.442	-1.270	-.684	-1.112	-.313
23	.026	-.789	-.823	-1.267	-1.410	-1.176	-1.168	.346	-.490
24	-1.080	-.622	-.621	-1.345	-1.159	-1.135	-1.135	-1.114	-.760
25	.324	.091	-.296	-1.081	-1.090	-1.131	-1.121	.250	-.808
26	-1.103	-1.079	-.300	-.923	-1.062	-1.105	-1.082	-1.110	-.292

TABLE 17 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	-.008	-.160	-.205	-.002	.236	.393	.517	.663	.139
2	-.109	-.141	-.114	.079	.318	.463	.573	.752	.928
3	-.319	-.273	-.457	-.014	.279	.453	.568	.673	.845
4	-.496	-.301	-.657	.089	.193	.411	.548	.717	.572
5	-.518	-.246	-.449	.077	.049	.363	.542	.667	.418
6	-.506	-.221	-.339	.063	-.107	.301	.509	.499	.287
7	-.488	-.188	-.207	.004	-.631	.088	.458	-1.287	-.295
8	-.425	-.438	-.457	-.293	-1.273	-1.277	.313	-1.413	.060
9	.040	-.980	-1.079	-.683	-1.561	-1.587	-1.446	-1.353	.058
10	-.256	-1.082	-1.291	-1.010	-1.248	-1.659	-1.513	-1.285	.227
11	-.595	-.791	-.947	-1.264	-1.080	-1.527	-1.528	-1.269	.106
12	-.877	-.686	-.846	-1.356	-1.053	-.774	-1.470	-1.251	-.032
13	-1.026	-.191	-.295	-1.010	.309	-1.267	-1.374	.916	-.012
14	-1.026	-.160	-.291	-.805	.361	-1.222	-1.280	.852	-.221
15	-.786	-.244	-.268	.132	.363	.641	-1.239	-1.267	-.586
16	-.601	-.268	-.283	.228	.326	.649	-1.217	-1.303	-.727
17	-.488	-.230	-.573	.238	.232	.645	.779	-1.287	-.755
18	-1.038	-.227	-.530	.215	.088	.619	.830	.982	-.506
19	-.357	-.271	-.280	.148	-.125	.575	.793	-1.283	-.072
20	-.925	-.490	-.537	.047	-.963	.463	.632	-1.287	-.203
21	-.127	-1.049	-1.055	-.354	-1.229	-1.511	-1.227	-1.321	-.235
22	-.331	-1.127	-1.146	-.809	-1.559	-1.495	-.742	-1.234	-.315
23	-.020	-.828	-.974	-1.370	-1.578	-1.401	-1.315	.337	-.494
24	-1.234	-.752	-.768	-1.520	-1.277	-1.317	-1.280	-1.228	-.751
25	.313	.086	-.281	-1.177	-1.166	-1.287	-1.264	.248	-.789
26	-1.268	-1.197	-.280	-.953	-1.137	-1.265	-1.207	-1.228	-.293
				$\delta_r = 0°$					
1	.014	-.014	.394	.114	.286	.425	.535	.667	.109
2	-.028	.062	.544	.261	.373	.485	.595	.745	.931
3	-.204	-.036	.406	.074	.314	.474	.587	.687	.844
4	-.354	-.062	.232	.202	.210	.423	.573	.719	.564
5	-.367	-.026	.278	.184	.055	.380	.561	.665	.396
6	-.356	-.040	.170	.132	-.108	.311	.525	.468	.277
7	-.342	-.228	-.234	.032	-.451	.094	.465	-1.566	-.279
8	-.314	-.458	-.612	-.275	-1.339	-1.378	.317	-1.701	.065
9	-.067	-1.012	-1.268	-.733	-1.753	-1.648	-1.685	-1.631	.061
10	-.291	-1.143	-1.524	-1.102	-1.402	-1.710	-1.737	-1.532	.226
11	-.597	-.893	-1.148	-1.411	-1.151	-1.591	-1.747	-1.484	.115
12	-.849	-.825	-.952	-1.593	-1.110	-.791	-1.683	-1.446	.000
13	-1.000	.032	-.058	-1.210	.341	-1.284	-1.601	.906	-.006
14	-1.010	.117	.042	-.950	.406	-1.229	-1.467	.833	-.303
15	-.868	.060	.054	.204	.404	.648	-1.371	-1.538	-.580
16	-.662	.046	.038	.285	.359	.654	-1.347	-1.592	-.719
17	-.289	.048	-.240	.295	.249	.636	.780	-1.564	-.749
18	-1.049	.006	-.296	.259	.088	.622	.840	.980	-.533
19	-.177	-.278	-.298	.168	-.135	.571	.796	-1.592	-.091
20	-.916	-.544	-.610	.042	-.918	.452	.607	-1.570	-.216
21	.008	-1.139	-1.172	-.305	-1.292	-1.693	-1.411	-1.564	-.240
22	-.385	-1.224	-1.266	-.850	-1.698	-1.661	-.864	-1.478	-.309
23	-.035	-.972	-1.096	-1.509	-1.753	-1.546	-1.571	.287	-.501
24	-1.308	-.911	-.880	-1.745	-1.386	-1.436	-1.521	-1.404	-.758
25	.324	.081	-.276	-1.387	-1.210	-1.368	-1.487	.215	-.822
26	-1.340	-1.262	-.278	-1.078	-1.180	-1.342	-1.373	-1.380	-.283
				$\delta_r = 10°$					
1	.050	.104	.366	.241	.344	.445	.557	.640	.134
2	.040	.222	.581	.374	.434	.516	.619	.750	.934
3	-.103	.152	.807	.174	.355	.502	.611	.689	.860
4	-.218	.130	.724	.334	.234	.443	.591	.719	.573
5	-.224	.148	.656	.296	.059	.393	.571	.650	.419
6	-.222	.102	.461	.213	-.111	.318	.531	.442	.283
7	-.206	-.313	-.398	.075	-.465	.083	.459	-1.689	-.281
8	-.202	-.533	-.906	-.235	-1.383	-1.613	.303	-1.846	.066
9	-.179	-1.066	-1.533	-.711	-1.818	-1.779	-1.856	-1.760	.060
10	-.345	-1.257	-1.693	-1.073	-1.516	-1.822	-1.886	-1.663	.244
11	-.587	-1.058	-1.335	-1.405	-1.211	-1.706	-1.874	-1.582	.138
12	-.813	-.968	-1.134	-1.676	-1.148	-.862	-1.794	-1.523	.016
13	-.962	.202	.195	-1.342	.381	-1.397	-1.711	.915	.016
14	-1.000	.337	.311	-1.010	.451	-1.318	-1.597	.826	-.371
15	-1.010	.305	.289	.285	.443	.674	-1.471	-1.687	-.589
16	-.724	.289	.276	.370	.385	.672	-1.417	-1.743	-.723
17	-.099	.261	.030	.374	.258	.662	.794	-1.717	-.754
18	-1.067	.172	-.091	.326	.096	.632	.856	.972	-.515
19	-.016	-.373	-.354	.213	-.145	.575	.806	-1.756	-.066
20	-.887	-.669	-.705	.065	-1.059	.451	.591	-1.713	-.182
21	.119	-1.248	-1.291	-.198	-1.381	-1.889	-1.567	-1.671	-.232
22	-.399	-1.389	-1.386	-.789	-1.748	-1.844	-.940	-1.592	-.315
23	-.020	-1.156	-1.181	-1.492	-1.797	-1.751	-1.762	.277	-.495
24	-1.345	-1.090	-.969	-1.787	-1.467	-1.623	-1.713	-1.475	-.756
25	.383	.086	-.289	-1.508	-1.266	-1.532	-1.669	.202	-.798
26	-1.389	-1.291	-.281	-1.115	-1.225	-1.478	-1.503	-1.438	-.281

TABLE 17 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = -10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	.100	.208	.376	.339	.385	.462	.570	.685	.122
2	.134	.391	.533	.452	.470	.528	.631	.769	.932
3	.020	.351	.759	.247	.391	.510	.633	.705	.853
4	-.084	.329	.886	.444	.259	.444	.607	.737	.568
5	-.080	.317	.778	.396	.077	.391	.582	.667	.398
6	-.080	.240	.612	.268	-.109	.308	.544	.452	.267
7	-.072	-.455	-.712	.101	-.547	.067	.470	-1.590	-.301
8	-.108	-.595	-1.324	-.225	-1.360	-1.692	.314	-1.755	.054
9	-.313	-1.054	-1.827	-.734	-1.771	-1.790	-1.862	-1.703	.060
10	-.391	-1.234	-1.678	-1.103	-1.526	-1.812	-1.890	-1.627	.247
11	-.577	-1.084	-1.453	-1.434	-1.237	-1.692	-1.868	-1.568	.151
12	-.778	-.980	-1.204	-1.724	-1.164	-.883	-1.796	-1.502	.038
13	-.924	.333	.398	-1.465	.401	-1.421	-1.717	.924	.026
14	-.982	.523	.522	-1.122	.480	-1.337	-1.621	.835	-.432
15	-1.240	.519	.488	.349	.474	.673	-1.499	-1.653	-.604
16	-.770	.499	.469	.430	.411	.681	-1.432	-1.687	-.729
17	.076	.441	.265	.438	.281	.669	.796	-1.673	-.745
18	-1.080	.309	.080	.375	.105	.633	.862	.974	-.512
19	.152	-.529	-.451	.239	-.134	.579	.807	-1.719	-.086
20	-.850	-.788	-.825	.075	-1.172	.438	.580	-1.667	-.207
21	.248	-1.281	-1.392	-.207	-1.389	-1.861	-1.587	-1.669	-.237
22	-.425	-1.415	-1.398	-.809	-1.700	-1.808	-.953	-1.576	-.315
23	-.044	-1.196	-1.204	-1.499	-1.759	-1.740	-1.780	.285	-.496
24	-1.379	-1.120	-1.008	-1.803	-1.474	-1.629	-1.741	-1.452	-.751
		.092	-.302	-1.596	-1.269	-1.550	-1.701	.219	-.801
26	-1.427	-1.309	-.298	-1.197	-1.231	-1.486	-1.521	-1.416	-.295
				$\delta_r = 30°$					
1	.095	.307	.562	.437	.433	.501	.571	.688	.142
2	.217	.523	.703	.543	.503	.573	.634	.763	.938
3	.158	.531	.764	.323	.417	.547	.628	.698	.848
4	.081	.509	.861	.547	.277	.477	.611	.746	.567
5	.089	.479	.752	.479	.086	.423	.581	.666	.407
6	.091	.358	.552	.333	-.099	.338	.538	.463	.281
7	.103	-.547	-1.121	.140	-.791	.076	.472	-1.368	-.315
8	.024	-.598	-1.780	-.263	-1.279	-1.521	.319	-1.503	.064
9	-.506	-.929	-2.022	-.727	-1.620	-1.569	-1.568	-1.467	.064
10	-.492	-1.095	-1.683	-1.062	-1.456	-1.604	-1.564	-1.406	.251
11	-.595	-1.018	-1.416	-1.349	-1.228	-1.547	-1.548	-1.372	.154
12	-.719	-.931	-1.190	-1.605	-1.152	-.835	-1.503	-1.334	.046
13	-.832	.455	.562	-1.437	.444	-1.332	-1.450	.911	.028
14	-.891	.655	.689	-1.156	.505	-1.262	-1.378	.843	-.545
15	-1.441	.687	.650	.413	.493	.710	-1.307	-1.408	-.697
16	-.745	.667	.624	.497	.433	.710	-1.268	-1.435	-.804
17	.269	.570	.436	.505	.292	.684	.789	-1.421	-.800
18	-.970	.408	.206	.423	.121	.656	.845	.972	-.507
19	.324	-.626	-.537	.273	-.125	.594	.804	-1.445	-.076
20	-.767	-.816	-.974	.102	-1.253	.445	.603	-1.421	-.208
21	.375	-1.202	-1.402	-.371	-1.343	-1.596	-1.339	-1.453	-.240
22	-.532	-1.335	-1.349	-.814	-1.546	-1.577	-.800	-1.360	-.315
23	-.040	-1.145	-1.154	-1.393	-1.596	-1.507	-1.432	.294	-.499
24	-1.302	-1.065	-1.016	-1.655	-1.394	-1.435	-1.405	-1.304	-.750
25	.340	.123	-.319	-1.539	-1.236	-1.380	-1.384	.223	-.794
26	-1.346	-1.246	-.317	-1.238	-1.189	-1.348	-1.301	-1.288	-.309
				$\delta_r = 40°$					
1	.121	.373	.647	.504	.479	.513	.593	.706	.130
2	.303	.622	.777	.606	.551	.584	.653	.776	.931
3	.273	.665	.839	.373	.455	.564	.663	.718	.844
4	.223	.635	.727	.616	.308	.491	.632	.736	.571
5	.236	.569	.544	.542	.115	.430	.601	.666	.409
6	.236	.424	.400	.365	-.089	.354	.560	.466	.277
7	.244	-.659	-1.217	.163	-.907	.103	.490	-1.260	-.334
8	.133	-.686	-1.829	-.390	-1.199	-1.364	.326	-1.368	.067
9	-.551	-.875	-1.825	-.729	-1.487	-1.428	-1.372	-1.340	.065
10	-.576	-1.000	-1.432	-1.036	-1.394	-1.467	-1.372	-1.306	.271
11	-.656	-.949	-1.257	-1.293	-1.229	-1.424	-1.372	-1.282	.174
12	-.732	-.878	-1.094	-1.498	-1.161	-.778	-1.343	-1.262	.051
13	-.818	.559	.643	-1.371	.475	-1.255	-1.310	.922	.012
14	-.859	.780	.773	-1.167	.541	-1.208	-1.250	.860	-.623
15	-1.459	.822	.789	.460	.533	.709	-1.200	-1.294	-.745
16	-.746	.778	.751	.534	.463	.711	-1.172	-1.316	-.840
17	.424	.631	.532	.542	.316	.689	.797	-1.302	-.824
18	-.936	.431	.267	.466	.131	.655	.855	.986	-.536
19	.471	-.725	-.594	.295	-.113	.602	.810	-1.308	-.071
20	-.764	-.812	-.962	.110	-1.181	.463	.618	-1.308	-.202
21	.477	-1.059	-1.305	-.604	-1.215	-1.400	-1.192	-1.322	-.243
22	-.650	-1.161	-1.261	-.827	-1.435	-1.390	-.713	-1.266	-.320
23	-.012	-1.037	-1.139	-1.313	-1.497	-1.337	-1.252	.300	-.498
24	-1.193	-.971	-1.030	-1.538	-1.350	-1.295	-1.229	-1.258	-.763
25	.354	.112	-.319	-1.468	-1.219	-1.251	-1.219	.216	-.806
26	-1.219	-1.206	-.319	-1.239	-1.183	-1.238	-1.174	-1.246	-.332

TABLE 18

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	.004	-.241	-1.697	-.217	.140	.329	.465	.624	.203
2	.161	-.211	-2.879	-.102	.302	.454	.565	.726	1.006
3	.071	-.518	-3.598	-.118	.243	.431	.561	.664	.916
4	-.165	-.945	-2.893	-.102	.160	.369	.529	.684	.618
5	-.401	-1.014	-2.556	-.096	.042	.317	.507	.620	.448
6	-.581	-1.000	-1.945	-.055	-.081	.250	.471	.444	.309
7	-.819	.190	.093	-.051	-.283	.048	.395	-1.226	-.253
8	-.895	.176	.111	-.191	-.866	-.950	.250	-1.340	.066
9	.667	-.348	-.400	-.256	-1.235	-1.254	-1.212	-1.276	.034
10	.482	-.785	-.818	-.449	-.988	-1.373	-1.297	-1.192	.112
11	.196	-.802	-.873	-.693	-.796	-1.323	-1.367	-1.154	-.006
12	-.165	-.775	-.723	-.898	-.741	-.677	-1.363	-1.122	-.106
13	-.504	-.358	-.782	-.707	.235	-1.028	-1.311	.874	-.076
14	-.742	-.502	-.931	-.504	.360	-.944	-1.190	.866	-.064
15	-.919	-.955	-.956	-.006	.360	.609	-1.072	-1.160	-.380
16	-.927	-1.413	-1.406	.159	.306	.631	-1.020	-1.194	-.458
17	-.694	-1.389	-.992	.167	.202	.593	.743	-1.180	-.349
18	-.770	-1.443	-.729	.142	.069	.575	.832	.974	-.096
19	-.266	-.073	-.113	.093	-.111	.512	.780	-1.174	.020
20	-.266	.012	-.113	.035	-.587	.377	.609	-1.180	-.042
21	.026	-.427	-.497	-.140	-.854	-1.379	-1.120	-1.200	-.159
22	.419	-.794	-.760	-.386	-1.239	-1.399	-.679	-1.138	-.271
23	-.038	-.727	-.699	-.876	-1.336	-1.335	-1.212	.280	-.464
24	-.984	-.723	-.566	-1.071	-1.075	-1.210	-1.174	-1.092	-.719
25	.280	.069	-.240	-.839	-.911	-1.143	-1.158	.192	-.763
26	-1.032	-.925	-.240	-.612	-.864	-1.101	-1.090	-1.064	-.253
				$\delta_r = -30°$					
1	.138	-.138	-1.270	-.161	.161	.347	.484	.617	.189
2	.222	-.098	-1.857	-.069	.321	.468	.584	.730	.986
3	.096	-.311	-2.510	-.073	.254	.448	.578	.667	.908
4	-.122	-.524	-2.651	-.026	.169	.381	.552	.679	.619
5	-.306	-.614	-2.228	-.042	.050	.331	.532	.605	.448
6	-.476	-.657	-1.603	-.018	-.071	.258	.486	.407	.306
7	-.716	.352	.024	-.024	-.139	.054	.408	-1.482	-.246
8	-.744	.348	.042	-.137	-.903	-.960	.262	-1.659	.053
9	.600	-.197	-.462	-.192	-1.403	-1.444	-1.446	-1.619	.018
10	.500	-.709	-.841	-.429	-1.071	-1.593	-1.562	-1.516	.102
11	.246	-.772	-.833	-.700	-.808	-1.556	-1.654	-1.427	-.014
12	-.096	-.715	-.635	-.964	-.746	-.772	-1.664	-1.369	-.110
13	-.442	-.303	-.627	-.750	.242	-1.202	-1.618	.863	-.069
14	-.718	-.348	-.681	-.512	.363	-1.081	-1.486	.843	-.010
15	-1.000	-.569	-.623	.022	.369	.635	-1.326	-1.468	-.342
16	-.896	-.762	-.823	.171	.310	.639	-1.240	-1.506	-.426
17	-.544	-.787	-.817	.198	.202	.615	.752	-1.484	-.336
18	-.764	-.811	-.619	.161	.071	.575	.846	.962	-.094
19	-.174	.016	-.135	.113	-.121	.520	.794	-1.484	.010
20	-.202	.114	-.129	.044	-.409	.391	.580	-1.482	-.049
21	.084	-.325	-.546	-.056	-.857	-1.627	-1.404	-1.518	-.159
22	.446	-.766	-.857	-.359	-1.405	-1.661	-.854	-1.419	-.275
23	-.078	-.722	-.746	-.942	-1.528	-1.615	-1.580	.232	-.458
24	-1.166	-.693	-.560	-1.198	-1.192	-1.494	-1.506	-1.325	-.717
25	.276	.102	-.236	-.903	-.970	-1.375	-1.474	.159	-.756
26	-1.240	-.984	-.232	-.625	-.919	-1.313	-1.352	-1.262	-.246
				$\delta_r = -20°$					
1	.160	-.094	-.663	-.093	.200	.363	.558	.634	.196
2	.216	-.036	-.801	-.030	.367	.494	.597	.747	1.000
3	.101	-.204	-1.225	-.002	.292	.467	.599	.677	.904
4	-.059	-.368	-1.452	.072	.196	.394	.566	.689	.613
5	-.194	-.396	-1.255	.042	.065	.333	.532	.602	.443
6	-.333	-.388	-.849	.034	-.071	.257	.479	.374	.305
7	-.535	.326	.034	.006	-.109	.035	.395	-1.695	-.242
8	-.523	.328	.080	-.054	-.954	-.871	.239	-1.899	.044
9	.432	-.310	-.520	-.211	-1.597	-1.563	-1.603	-1.875	.014
10	.414	-.854	-.865	-.513	-1.181	-1.755	-1.740	-1.750	.102
11	.206	-.842	-.894	-.849	-.863	-1.782	-1.857	-1.630	-.008
12	-.071	-.696	-.604	-1.143	-.813	-.871	-1.898	-1.578	-.104
13	-.380	-.218	-.408	-.865	.270	-1.378	-1.896	.855	-.064
14	-.638	-.186	-.384	-.584	.395	-1.204	-1.777	.832	-.034
15	-.966	-.340	-.357	.066	.395	.647	-1.546	-1.665	-.367
16	-.747	-.448	-.468	.237	.341	.655	-1.421	-1.709	-.439
17	-.384	-.454	-.612	.252	.222	.625	.744	-1.683	-.345
18	-.711	-.426	-.488	.201	.085	.586	.847	.962	-.096
19	-.079	.120	-.046	.131	-.123	.520	.779	-1.679	.004
20	-.162	.218	-.032	.048	-.234	.373	.544	-1.679	-.064
21	.123	-.426	-.582	-.076	-.802	-1.810	-1.605	-1.739	-.172
22	.382	-.918	-.930	-.427	-1.569	-1.859	-.977	-1.612	-.287
23	-.105	-.804	-.886	-1.101	-1.792	-1.833	-1.849	.188	-.469
24	-1.287	-.660	-.584	-1.414	-1.383	-1.727	-1.751	-1.521	-.729
25	.261	.058	-.239	-1.056	-1.058	-1.563	-1.689	.115	-.766
26	-1.398	-1.176	-.231	-.726	-.998	-1.480	-1.550	-1.448	-.244

[redacted]

TABLE 18 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

ψ=30°; α= 0°; δ_e= 0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				δ_r=-10°					
1	.136	-.018	-.102	.018	.234	.383	.512	.635	.181
2	.213	.099	.100	.184	.398	.513	.621	.756	.998
3	.109	-.018	-.185	.090	.317	.487	.625	.690	.907
4	-.043	-.127	-.440	.198	.197	.409	.585	.701	.614
5	-.142	-.141	-.308	.146	.043	.350	.552	.597	.437
6	-.237	-.137	-.220	.090	-.102	.271	.500	.367	.302
7	-.368	.200	.047	.032	-.144	.035	.411	-1.866	-.233
8	-.350	.162	.029	-.040	-1.004	-.729	.242	-2.077	.064
9	.279	-.358	-.599	-.236	-1.770	-1.686	-1.812	-2.039	.036
10	.291	-.820	-1.145	-.539	-1.370	-1.916	-1.976	-1.921	.125
11	.089	-.774	-.969	-.878	-.986	-1.965	-2.075	-1.760	.024
12	-.170	-.568	-.813	-1.257	-.907	-.949	-2.085	-1.676	-.070
13	-.439	-.069	-.216	-.986	.299	-1.472	-2.058	.862	-.042
14	-.660	.050	-.100	-.685	.431	-1.240	-1.931	.827	-.087
15	-.911	-.042	-.057	.128	.427	.664	-1.679	-1.927	-.384
16	-.597	-.109	-.122	.299	.360	.670	-1.520	-1.994	-.437
17	-.261	-.131	-.477	.293	.220	.639	.750	-1.963	-.338
18	-.749	-.143	-.460	.246	.069	.601	.871	.953	-.099
19	-.022	.113	-.024	.160	-.152	.528	.800	-2.014	.016
20	-.269	.091	-.061	.048	-.244	.377	.520	-1.986	-.042
21	.170	-.473	-.613	-.066	-.831	-2.049	-1.815	-2.022	-.155
22	.225	-.927	-1.026	-.419	-1.656	-2.063	-1.091	-1.811	-.270
23	-.126	-.780	-.906	-1.116	-1.945	-2.010	-2.137	.179	-.459
24	-1.381	-.636	-.678	-1.533	-1.526	-1.888	-2.042	-1.595	-.722
25	.261	.050	-.232	-1.224	-1.148	-1.703	-1.942	.116	-.769
26	-1.504	-1.216	-.228	-.804	-1.079	-1.580	-1.720	-1.491	-.229
				δ_r= 0°					
1	.129	.048	.320	.135	.280	.408	.515	.632	.173
2	.246	.231	.596	.372	.455	.553	.640	.777	.994
3	.166	.165	.520	.181	.350	.524	.640	.702	.905
4	.041	.084	.325	.316	.211	.427	.604	.702	.611
5	-.027	.054	.322	.256	.039	.365	.557	.592	.442
6	-.097	.020	.212	.169	-.118	.276	.505	.314	.292
7	-.203	.040	.000	.060	-.150	.022	.406	-2.115	-.236
8	-.212	.004	-.104	-.076	-1.065	-.778	.209	-2.382	.038
9	.135	-.438	-.718	-.268	-1.919	-1.945	-1.944	-2.362	.010
10	.175	-.849	-1.298	-.575	-1.504	-2.165	-2.197	-2.280	.117
11	.008	-.809	-1.196	-.932	-1.069	-2.147	-2.290	-2.133	.024
12	-.197	-.651	-.906	-1.402	-.984	-1.031	-2.254	-2.024	-.054
13	-.419	.076	-.006	-1.177	.315	-1.641	-2.217	.855	-.012
14	-.602	.263	.157	-.825	.459	-1.376	-2.095	.811	-.169
15	-.893	.225	.222	.197	.457	.708	-1.825	-2.304	-.438
16	-.558	.157	.155	.362	.378	.706	-1.632	-2.366	-.470
17	-.078	.116	-.161	.374	.232	.659	.761	-2.312	-.373
18	-.715	.050	-.239	.312	.061	.618	.885	.950	-.117
19	.111	-.012	-.067	.193	-.159	.527	.793	-2.332	-.006
20	-.300	-.070	-.147	.058	-.264	.351	.485	-2.350	-.067
21	.238	-.572	-.659	-.062	-.917	-2.290	-2.087	-2.394	-.177
22	.103	-1.004	-1.067	-.427	-1.823	-2.312	-1.183	-2.189	-.300
23	-.136	-.865	-.953	-1.177	-2.106	-2.267	-2.354	.113	-.482
24	-1.472	-.751	-.755	-1.684	-1.616	-2.161	-2.286	-1.920	-.748
25	.273	.050	-.222	-1.392	-1.201	-2.002	-2.207	.066	-.790
26	-1.616	-1.277	-.222	-.917	-1.122	-1.857	-1.958	-1.765	-.236
				δ_r= 10°					
1	.094	.122	.350	.223	.309	.427	.528	.634	.188
2	.273	.362	.666	.445	.489	.575	.673	.779	.982
3	.223	.339	.816	.260	.373	.547	.665	.703	.900
4	.118	.258	.735	.412	.224	.449	.621	.701	.611
5	.064	.215	.638	.342	.048	.372	.575	.614	.427
6	.006	.134	.375	.219	-.124	.282	.506	.294	.293
7	-.082	-.085	-.190	.060	-.140	.004	.395	-2.211	-.248
8	-.124	-.126	-.458	-.082	-1.112	-.728	.183	-2.481	.040
9	-.016	-.500	-1.055	-.360	-1.994	-2.105	-1.958	-2.491	.008
10	.062	-.890	-1.403	-.676	-1.569	-2.354	-2.333	-2.444	.134
11	-.056	-.900	-1.447	-1.050	-1.110	-2.332	-2.486	-2.292	.040
12	-.237	-.776	-1.073	-1.533	-1.016	-1.127	-2.494	-2.202	-.034
13	-.436	.181	.206	-1.326	.341	-1.795	-2.494	.875	.036
14	-.592	.417	.379	-.964	.481	-1.505	-2.403	.820	-.222
15	-1.022	.435	.423	.256	.487	.710	-2.143	-2.352	-.447
16	-.602	.370	.368	.419	.403	.712	-1.895	-2.432	-.467
17	.070	.287	.077	.445	.246	.666	.756	-2.389	-.353
18	-.725	.169	-.061	.354	.074	.618	.889	.959	-.104
19	.229	-.122	-.170	.213	-.168	.527	.790	-2.387	-.008
20	-.347	-.234	-.306	.054	-.271	.342	.444	-2.415	-.070
21	.305	-.697	-.834	-.083	-.974	-2.416	-2.327	-2.466	-.184
22	-.002	-1.108	-1.156	-.511	-1.948	-2.487	-1.272	-2.282	-.299
23	-.197	-1.000	-1.040	-1.288	-2.200	-2.475	-2.554	.090	-.465
24	-1.697	-.915	-.872	-1.791	-1.681	-2.400	-2.492	-2.123	-.743

TABLE 18 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 0°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	.125	.202	.347	.299	.352	.435	.532	.637	.175
2	.329	.472	.563	.492	.545	.589	.671	.803	.982
3	.309	.501	.802	.327	.414	.560	.679	.723	.899
4	.232	.427	.867	.510	.248	.448	.629	.706	.611
5	.194	.358	.724	.423	.051	.367	.576	.585	.438
6	.137	.243	.452	.268	-.135	.262	.506	.251	.292
7	.050	-.172	-.522	.063	-.189	-.032	.398	-2.238	-.260
8	-.026	-.217	-1.046	-.142	-1.277	-.683	.169	-2.491	.052
9	-.101	-.556	-1.579	-.453	-2.064	-2.159	-1.950	-2.519	.036
10	-.024	-.906	-1.659	-.740	-1.645	-2.456	-2.287	-2.491	.147
11	-.093	-.949	-1.589	-1.100	-1.209	-2.516	-2.442	-2.353	.073
12	-.242	-.861	-1.224	-1.585	-1.105	-1.248	-2.484	-2.265	.008
13	-.410	.299	.363	-1.370	.365	-2.022	-2.542	.836	.046
14	-.576	.552	.540	-1.033	.520	-1.698	-2.498	.809	-.278
15	-1.216	.614	.589	.313	.527	.716	-2.243	-2.363	-.458
16	-.653	.552	.522	.461	.424	.714	-1.962	-2.429	-.474
17	.232	.444	.260	.494	.260	.677	.743	-2.382	-.363
18	-.713	.288	.063	.388	.057	.611	.888	.934	-.119
19	.370	-.235	-.266	.228	-.193	.516	.783	-2.370	.006
20	-.350	-.407	-.528	.037	-.344	.312	.446	-2.404	-.042
21	.400	-.836	-1.062	-.122	-1.084	-2.472	-2.279	-2.472	-.167
22	-.083	-1.186	-1.264	-.561	-2.084	-2.546	-1.265	-2.298	-.276
23	-.236	-1.065	-1.107	-1.343	-2.305	-2.569	-2.524	.027	-.466
24	-1.848	-.998	-.933	-1.813	-1.846	-2.538	-2.452	-2.209	-.728
25	.265	.035	-.237	-1.503	-1.257	-2.235	-2.409	.045	-.760
26	-1.882	-1.406	-.241	-1.022	-1.180	-2.076	-2.228	-1.963	-.240
				$\delta_r = 30°$					
1	.110	.240	.478	.387	.378	.453	.536	.635	.195
2	.358	.560	.656	.555	.562	.620	.677	.824	.990
3	.382	.648	.797	.369	.420	.586	.683	.735	.908
4	.321	.572	.827	.595	.241	.475	.630	.713	.600
5	.295	.460	.628	.495	.028	.394	.575	.575	.430
6	.242	.306	.425	.313	-.167	.275	.505	.232	.295
7	.169	-.318	-.915	.082	-.211	-.036	.387	-2.331	-.289
8	.045	-.332	-1.715	-.176	-1.285	-.764	.159	-2.591	.048
9	-.220	-.642	-2.205	-.505	-2.167	-2.143	-2.061	-2.595	.026
10	-.181	-.998	-1.919	-.798	-1.753	-2.416	-2.323	-2.551	.157
11	-.209	-1.124	-1.543	-1.136	-1.313	-2.503	-2.448	-2.407	.078
12	-.319	-1.020	-1.313	-1.613	-1.195	-1.279	-2.487	-2.301	.022
13	-.472	.388	.478	-1.457	.392	-2.099	-2.544	.852	.048
14	-.630	.652	.654	-1.132	.536	-1.794	-2.515	.822	-.339
15	-1.469	.764	.709	.367	.532	.741	-2.307	-2.425	-.500
16	-.748	.688	.648	.507	.424	.741	-2.072	-2.511	-.506
17	.374	.538	.382	.549	.239	.695	.740	-2.469	-.380
18	-.756	.326	.144	.435	.026	.628	.888	.928	-.120
19	.492	-.392	-.378	.251	-.251	.523	.777	-2.475	.000
20	-.402	-.566	-.774	.056	-.303	.315	.429	-2.501	-.064
21	.457	-.988	-1.256	-.132	-1.088	-2.461	-2.282	-2.563	-.179
22	-.205	-1.360	-1.350	-.599	-2.155	-2.517	-1.270	-2.345	-.293
23	-.270	-1.238	-1.169	-1.393	-2.450	-2.531	-2.493	.020	-.478
24	-1.927	-1.174	-.978	-1.852	-1.988	-2.497	-2.434	-2.259	-.792
25	.232	.018	-.268	-1.607	-1.556	-2.370	-2.352	-.024	-.771
26	-2.161	-1.694	-.274	-1.146	-1.450	-2.214	-2.221	-2.176	-.291
				$\delta_r = 40°$					
1	.080	.258	.562	.433	.405	.457	.544	.627	.184
2	.376	.601	.724	.587	.599	.623	.693	.813	1.000
3	.443	.754	.858	.392	.457	.617	.693	.736	.904
4	.394	.677	.708	.642	.275	.467	.648	.718	.600
5	.368	.538	.478	.533	.056	.377	.591	.609	.430
6	.326	.345	.308	.331	-.146	.262	.515	.256	.288
7	.260	-.405	-1.112	.091	-.220	-.051	.399	-2.179	-.302
8	.105	-.423	-2.106	-.193	-1.301	-1.043	.174	-2.413	.054
9	-.294	-.720	-2.332	-.543	-2.032	-2.119	-2.055	-2.429	.054
10	-.334	-1.129	-1.644	-.843	-1.673	-2.324	-2.207	-2.401	.178
11	-.412	-1.236	-1.318	-1.175	-1.287	-2.359	-2.303	-2.278	.104
12	-.505	-1.115	-1.156	-1.573	-1.164	-1.221	-2.323	-2.202	.050
13	-.652	.446	.560	-1.404	.403	-2.051	-2.348	.819	.032
14	-.793	.688	.720	-1.112	.553	-1.787	-2.307	.817	-.364
15	-1.579	.863	.820	.392	.571	.734	-2.164	-2.278	-.490
16	-.861	.768	.734	.514	.457	.730	-1.998	-2.345	-.482
17	.485	.585	.476	.565	.273	.682	.734	-2.300	-.354
18	-.932	.345	.198	.459	.056	.613	.890	.923	-.114
19	.586	-.450	-.450	.260	-.224	.506	.791	-2.294	.010
20	-.561	-.593	-.902	.055	-.339	.301	.444	-2.335	-.048
21	.497	-1.087	-1.322	-.157	-1.118	-2.324	-2.155	-2.399	-.162
22	-.445	-1.522	-1.284	-.640	-2.076	-2.369	-1.176	-2.218	-.280
23	-.266	-1.278	-1.084	-1.394	-2.285	-2.375	-2.307	.020	-.474
24	-1.887	-1.206	-.942	-1.787	-1.908	-2.350	-2.258	-2.161	
25	.243	-.002	-.288	-1.561	-1.529	-2.256	-2.202	-.006	-.774
26	-2.056	-1.716	-.284	-1.146	-1.415	-2.148	-2.112	-2.095	-.298

TABLE 19

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	.078	-.186	-1.372	-.259	.131	.311	.442	.567	.135
2	.201	-.106	-2.329	-.119	.404	.546	.636	.797	.916
3	.231	-.303	-2.574	.031	.307	.520	.664	.715	.844
4	.158	-.741	-1.424	.084	.207	.414	.604	.690	.546
5	-.011	-.758	-1.750	.044	.097	.343	.551	.578	.378
6	-.216	-.720	-1.639	.027	.015	.271	.494	.279	.239
7	-.402	.203	.202	.004	-.174	.068	.381	-1.580	-.231
8	-.369	.525	.308	-.223	-.338	-.188	.221	-2.169	-.015
9	.514	.348	.082	-.150	-1.011	-.926	-.604	-2.249	-.042
10	.628	-.049	-.293	-.146	-.850	-1.330	-1.257	-2.169	-.029
11	.575	-.375	-.621	-.223	-.568	-1.657	-1.655	-1.989	-.099
12	.453	-.508	-.632	-.464	-.436	-.818	-1.796	-1.795	-.153
13	.304	-.348	-.692	-.509	.202	-1.152	-1.832	.762	-.124
14	.121	-.379	-.650	-.409	.404	-.848	-1.732	.863	.080
15	-.168	-.765	-.716	-.044	.445	.691	-1.462	-2.321	-.134
16	-.378	-.939	-.907	.225	.357	.698	-1.174	-2.371	-.218
17	-.432	-.977	-.654	.296	.239	.657	.672	-2.375	-.218
18	.078	-1.161	-.501	.223	.112	.598	.875	.903	-.176
19	-.004	-.019	-.054	.159	-.041	.495	.785	-2.447	-.023
20	.475	.265	.017	.098	-.090	.349	.483	-2.416	-.156
21	.115	.117	-.082	-.198	-.271	-1.674	-1.917	-2.679	-.227
22	.646	-.259	-.336	-.155	-.884	-2.015	-1.053	-2.154	-.313
23	-.063	-.455	-.460	-.355	-1.353	-2.066	-2.240	.105	-.511
24	-.927	-.593	-.417	-.697	-1.082	-1.966	-2.187	-1.610	-.737
25	.263	.076	-.228	-.664	-.720	-1.744	-2.075	.093	-.790
26	-1.142	-.816	-.226	-.440	-.630	-1.476	-1.704	-1.287	-.239
				$\delta_r = -30°$					
1	.081	-.146	-1.010	-.215	.130	.311	.468	.587	.118
2	.215	-.050	-1.475	.017	.439	.554	.654	.804	.911
3	.213	-.123	-2.056	.069	.330	.525	.663	.721	.845
4	.136	-.264	-2.142	.142	.210	.411	.612	.707	.565
5	.056	-.391	-1.835	.071	.101	.346	.562	.572	.379
6	-.029	-.468	-1.631	.057	-.019	.268	.491	.272	.250
7	-.225	.331	.171	.040	-.105	.042	.380	-1.405	-.236
8	-.317	.665	.346	-.059	-.403	-.263	.208	-2.356	-.017
9	.441	.364	.037	-.002	-1.218	-1.052	-.543	-2.559	-.041
10	.564	-.035	-.381	-.031	-1.050	-1.494	-1.237	-2.479	-.025
11	.474	-.360	-.673	-.184	-.693	-1.917	-1.795	-2.232	-.085
12	.369	-.482	-.642	-.517	-.553	-.946	-2.050	-1.983	-.130
13	.234	-.291	-.567	-.571	.221	-1.357	-2.107	.797	-.120
14	.084	-.239	-.456	-.410	.424	-1.010	-2.006	.854	.108
15	-.236	-.366	-.398	-.023	.462	.707	-1.665	-2.753	-.118
16	-.374	-.547	-.573	.253	.380	.693	-1.333	-2.833	-.221
17	-.121	-.603	-.621	.318	.231	.660	.675	-2.856	-.191
18	.023	-.672	-.462	.241	.090	.597	.885	.911	-.174
19	.073	.222	.035	.165	-.086	.502	.795	-2.945	-.041
20	.374	.524	.133	.094	-.107	.328	.440	-2.962	-.149
21	.131	.185	-.094	-.119	-.338	-1.859	-2.233	-3.255	-.219
22	.622	-.227	-.419	-.107	-1.017	-2.297	-1.185	-2.471	-.296
23	-.098	-.443	-.552	-.416	-1.563	-2.384	-2.671	.089	-.485
24	-1.084	-.561	-.488	-.828	-1.290	-2.276	-2.623	-1.738	-.745
25	.259	.060	-.229	-.808	-.876	-2.033	-2.453	.080	-.801
26	-1.313	-.923	-.219	-.515	-.775	-1.710	-1.964	-1.413	-.230
				$\delta_r = -20°$					
1	.108	-.074	-.544	-.130	.158	.321	.462	.567	.129
2	.220	.049	-.579	.157	.463	.574	.683	.796	.926
3	.210	.002	-.933	.133	.355	.530	.661	.729	.824
4	.125	-.117	-1.117	.238	.216	.420	.618	.706	.532
5	.073	-.182	-1.019	.161	.079	.348	.568	.549	.346
6	.004	-.205	-.844	.118	-.031	.255	.491	.210	.225
7	-.141	.359	.106	.072	-.143	.021	.368	-1.359	-.254
8	-.183	.523	.260	-.097	-.456	-.309	.182	-2.627	-.039
9	.355	.209	.015	-.035	-1.268	-1.052	-.544	-3.000	-.051
10	.478	-.133	-.315	-.091	-1.183	-1.516	-1.143	-2.904	-.031
11	.366	-.361	-.513	-.267	-.774	-2.103	-1.806	-2.527	-.086
12	.266	-.410	-.460	-.632	-.627	-1.033	-2.323	-2.229	-.121
13	.145	-.182	-.354	-.658	.237	-1.497	-2.538	.747	-.092
14	.015	-.059	-.219	-.484	.446	-1.108	-2.429	.837	.084
15	-.252	-.125	-.142	.025	.485	.710	-1.973	-3.318	-.141
16	-.295	-.232	-.256	.302	.388	.720	-1.575	-3.433	-.229
17	-.044	-.275	-.404	.383	.234	.648	.673	-3.527	-.231
18	-.037	-.287	-.344	.292	.085	.596	.908	.865	-.207
19	.121	.285	.044	.199	-.127	.489	.796	-3.673	-.047
20	.243	.447	.162	.103	-.181	.309	.391	-3.757	-.180
21	.148	.121	-.048	-.147	-.375	-1.793	-2.585	-4.233	-.249
22	.486	-.240	-.371	-.162	-1.033	-2.458	-1.235	-2.859	-.323
23	-.145	-.410	-.548	-.559	-1.668	-2.640	-3.382	.045	-.511
24	-1.225	-.447	-.448	-.992	-1.429	-2.518	-3.362	-1.963	-.755
25	.245	.055	-.229	-.981	-.934	-2.184	-2.957	.020	-.814
26	-1.474	-1.045	-.210	-.636	-.838	-1.839	-2.250	-1.624	-.231

TABLE 19 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.098	-.041	-.134	-.028	.175	.344	.450	.586	.140
2	.241	.158	.126	.246	.504	.609	.651	.829	.932
3	.247	.154	.006	.201	.389	.572	.686	.740	.837
4	.176	.048	-.260	.338	.218	.432	.635	.707	.541
5	.122	.014	-.172	.252	.072	.355	.565	.553	.381
6	.065	-.008	-.124	.169	-.080	.262	.489	.179	.235
7	-.059	.193	.094	.085	-.185	-.021	.376	-1.237	-.220
8	-.098	.311	.203	-.085	-.576	-.359	.154	-2.718	-.012
9	.208	.048	-.017	-.055	-1.418	-1.102	-.587	-3.532	-.027
10	.365	-.239	-.363	-.148	-1.391	-1.604	-1.170	-3.419	-.006
11	.259	-.398	-.635	-.312	-.934	-2.471	-1.860	-2.870	-.054
12	.147	-.369	-.522	-.699	-.753	-1.244	-2.540	-2.536	-.080
13	.037	-.077	-.208	-.722	.257	-1.783	-2.908	.769	-.035
14	-.071	.118	.004	-.545	.471	-1.277	-2.819	.808	.062
15	-.325	.125	.122	.077	.531	.736	-2.263	-3.948	-.154
16	-.288	.054	.044	.331	.407	.748	-1.801	-3.975	-.230
17	.008	-.010	-.293	.429	.228	.676	.663	-4.472	-.206
18	-.145	-.039	-.306	.329	.054	.605	.918	.841	-.185
19	.184	.133	.011	.203	-.173	.490	.788	-4.691	-.031
20	.114	.272	.105	.100	-.243	.287	.337	-4.940	-.146
21	.214	-.008	-.096	-.160	-.463	-1.740	-2.883	-6.045	-.237
22	.331	-.324	-.380	-.173	-1.146	-2.688	-1.263	-3.268	-.304
23	-.196	-.438	-.554	-.605	-1.881	-3.166	-3.877	-.027	-.496
24	-1.449	-.429	-.467	-1.047	-1.683	-3.072	-3.945	-2.254	-.743
25	.233	.017	-.228	-1.064	-1.097	-2.570	-3.357	-.002	-.784
26	-1.759	-1.180	-.207	-.709	-.981	-2.160	-2.528	-1.878	-.210
				$\delta_r = 0°$					
1	.063	.014	.169	.067	.195	.346	.463	.562	.137
2	.257	.263	.564	.347	.543	.634	.679	.842	.928
3	.300	.329	.624	.267	.392	.600	.708	.747	.836
4	.225	.230	.420	.425	.219	.444	.630	.705	.538
5	.188	.177	.382	.343	.054	.354	.574	.507	.376
6	.122	.119	.296	.235	-.117	.246	.482	.095	.260
7	.008	.019	.015	.125	-.245	-.044	.352	-1.293	-.233
8	-.031	.127	.052	-.114	-.644	-.388	.125	-2.818	-.029
9	.067	-.097	-.251	-.124	-1.547	-1.110	-.597	-3.992	-.043
10	.233	-.337	-.610	-.235	-1.517	-1.576	-1.117	-3.966	-.002
11	.169	-.441	-.887	-.443	-1.030	-2.732	-1.732	-3.305	-.047
12	.055	-.380	-.670	-.833	-.841	-1.452	-2.603	-2.899	-.051
13	-.041	.031	-.021	-.827	.266	-2.122	-3.232	.709	.027
14	-.145	.287	.217	-.620	.483	-1.448	-3.265	.786	.018
15	-.422	.378	.347	.143	.533	.758	-2.572	-4.511	-.190
16	-.294	.290	.286	.367	.396	.778	-2.021	-4.208	-.266
17	.169	.214	-.033	.504	.227	.712	.654	-5.287	-.243
18	-.227	.133	-.111	.394	.036	.608	.914	.806	-.204
19	.276	-.006	-.058	.237	-.213	.488	.772	-5.446	-.043
20	-.004	.066	-.017	.114	-.284	.260	.286	-5.899	-.157
21	.245	-.189	-.230	-.196	-.521	-1.626	-3.171	-7.291	-.239
22	.175	-.464	-.470	-.225	-1.209	-2.702	-1.142	-3.693	-.299
23	-.263	-.517	-.543	-.694	-2.000	-3.586	-4.282	-.125	-.511
24	-1.641	-.454	-.453	-1.129	-1.903	-3.618	-4.591	-2.592	-.744
25	.222	.019	-.215	-1.161	-1.201	-3.004	-3.741	-.075	-.795
26	-2.012	-1.316	-.223	-.802	-1.074	-2.474	-2.794	-2.176	-.233
				$\delta_r = 10°$					
1	.047	.051	.230	.142	.232	.349	.453	.570	.149
2	.285	.359	.587	.411	.561	.630	.683	.859	.937
3	.353	.465	.844	.317	.409	.578	.708	.770	.849
4	.300	.375	.745	.518	.216	.439	.646	.701	.544
5	.267	.281	.637	.407	.031	.345	.570	.516	.380
6	.214	.203	.458	.267	-.152	.218	.463	.092	.223
7	.099	-.068	-.183	.119	-.300	-.087	.335	-1.176	-.231
8	.035	-.014	-.361	-.165	-.754	-.435	.088	-2.578	-.004
9	-.008	-.219	-.719	-.211	-1.673	-1.164	-.632	-4.045	-.027
10	.127	-.449	-.936	-.340	-1.692	-1.659	-1.123	-4.223	.020
11	.117	-.518	-1.259	-.589	-1.158	-2.844	-1.710	-3.475	-.012
12	.035	-.457	-1.000	-.988	-.953	-1.528	-2.576	-2.994	-.004
13	-.066	.102	.125	-.956	.271	-2.233	-3.329	.730	.080
14	-.158	.398	.335	-.737	.495	-1.541	-3.430	.775	-.006
15	-.517	.541	.536	.157	.561	.751	-2.737	-4.697	-.190
16	-.302	.455	.452	.417	.413	.763	-2.146	-3.816	-.258
17	.234	.355	.131	.536	.220	.686	.642	-5.771	-.233
18	-.259	.225	-.004	.411	.012	.605	.907	.801	-.198
19	.392	-.105	-.168	.246	-.240	.464	.757	-5.758	-.043
20	-.068	-.135	-.226	.092	-.327	.229	.276	-6.287	-.166
21	.312	-.398	-.491	-.230	-.589	-1.721	-3.319	-7.922	-.219
22	.094	-.652	-.674	-.288	-1.292	-2.807	-1.121	-3.824	-.305
23	-.300	-.631	-.710	-.825	-2.140	-3.671	-4.272	-.121	-.479
24	-1.735	-.545	-.540	-1.253	-2.090	-3.674	-4.901	-2.670	-.730
25	.205	-.002	-.236	-1.292	-1.359	-3.054	-3.942	-.084	-.787
26	-2.148	-1.461	-.250	-.912	-1.193	-2.530	-2.926	-2.232	-.235

[redacted]

TABLE 19 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 10°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = 20°$					
1	.023	.071	.250	.203	.252	.342	.433	.556	.145
2	.263	.396	.472	.412	.588	.674	.680	.860	.906
3	.389	.594	.842	.336	.441	.601	.747	.782	.829
4	.364	.499	.865	.586	.227	.457	.663	.706	.542
5	.340	.388	.696	.465	.027	.344	.575	.527	.371
6	.292	.257	.489	.295	-.168	.219	.476	.062	.228
7	.195	-.149	-.424	.121	-.330	-.093	.335	-1.298	-.244
8	.085	-.131	-.867	-.225	-.766	-.486	.072	-2.765	-.006
9	-.085	-.311	-1.281	-.311	-1.713	-1.237	-.673	-4.167	-.028
10	-.021	-.535	-1.345	-.471	-1.740	-1.749	-1.222	-4.247	.026
11	.025	-.648	-1.320	-.732	-1.205	-2.964	-1.926	-3.510	-.002
12	-.037	-.572	-1.164	-1.146	-.998	-1.613	-2.793	-3.047	.022
13	-.126	.168	.256	-1.109	.297	-2.377	-3.437	.722	.096
14	-.215	.471	.462	-.869	.484	-1.658	-3.421	.778	-.028
15	-.700	.697	.671	.215	.588	.765	-2.772	-4.749	-.200
16	-.381	.596	.570	.439	.432	.783	-2.201	-4.138	-.267
17	.368	.469	.281	.566	.229	.704	.632	-5.724	-.248
18	-.315	.301	.108	.432	.012	.591	.908	.776	-.194
19	.474	-.188	-.241	.244	-.252	.468	.770	-5.774	-.020
20	-.122	-.291	-.408	.064	-.371	.204	.232	-6.337	-.147
21	.346	-.556	-.732	-.299	-.625	-1.824	-3.365	-8.053	-.224
22	-.043	-.768	-.830	-.355	-1.305	-2.939	-1.285	-3.893	-.301
23	-.327	-.731	-.798	-.934	-2.160	-3.791	-4.546	-.130	-.483
24	-1.814	-.648	-.561	-1.385	-2.160	-3.783	-4.807	-2.710	-.729
25	.188	-.022	-.254	-1.443	-1.402	-3.162	-3.938	-.103	-.782
26	-2.230	-1.543	-.231	-1.045	-1.209	-2.632	-2.955	-2.305	-.242
				$\delta_r = 30°$					
1	.024	.098	.344	.258	.273	.341	.432	.545	.139
2	.266	.437	.522	.434	.618	.671	.680	.855	.933
3	.417	.705	.800	.380	.461	.628	.742	.771	.846
4	.433	.628	.848	.616	.245	.463	.662	.709	.552
5	.431	.480	.613	.524	.022	.364	.592	.521	.376
6	.381	.307	.453	.327	-.173	.232	.482	.060	.232
7	.272	-.193	-.557	.125	-.367	-.098	.344	-1.494	-.267
8	.143	-.193	-1.377	-.254	-.829	-.457	.090	-3.068	-.020
9	-.133	-.407	-1.931	-.382	-1.790	-1.215	-.668	-4.095	-.032
10	-.115	-.693	-1.674	-.556	-1.843	-1.722	-1.254	-4.033	.032
11	-.143	-1.022	-1.202	-.834	-1.300	-2.919	-1.938	-3.405	.016
12	-.190	-.925	-.970	-1.250	-1.047	-1.594	-2.811	-3.002	.036
13	-.262	.238	.346	-1.188	.300	-2.384	-3.449	.684	.101
14	-.365	.518	.583	-.949	.506	-1.656	-3.490	.783	-.051
15	-.998	.793	.765	.237	.606	.772	-2.807	-4.578	-.228
16	-.528	.715	.692	.429	.459	.783	-2.227	-4.465	-.281
17	.486	.535	.403	.593	.220	.707	.623	-5.211	-.253
18	-.466	.333	.184	.460	.006	.612	.930	.733	-.204
19	.589	-.211	-.302	.250	-.263	.476	.775	-5.347	-.040
20	-.246	-.327	-.617	.068	-.375	.219	.244	-5.752	-.158
21	.361	-.677	-1.012	-.319	-.645	-1.831	-3.400	-6.961	-.230
22	-.169	-1.108	-1.006	-.407	-1.363	-2.917	-1.232	-3.820	-.307
23	-.353	-.961	-.828	-1.014	-2.233	-3.744	-4.500	-.143	-.501
24	-1.853	-.900	-.559	-1.487	-2.247	-3.738	-4.889	-2.674	-.752
25	.187	-.037	-.261	-1.534	-1.506	-3.136	-4.002	-.118	-.798
26	-2.272	-1.616	-.257	-1.127	-1.282	-2.598	-2.998	-2.281	-.261
				$\delta_r = 40°$					
1	.047	.128	.426	.310	.261	.325	.419	.534	.138
2	.299	.417	.578	.464	.665	.647	.685	.876	.905
3	.451	.788	.875	.380	.468	.637	.738	.777	.831
4	.514	.719	.751	.696	.259	.471	.667	.718	.547
5	.510	.558	.491	.595	.029	.351	.599	.530	.364
6	.473	.342	.316	.363	-.162	.243	.495	.072	.234
7	.355	-.234	-.692	.166	-.359	-.098	.354	-1.540	-.267
8	.178	-.275	-1.580	-.292	-.797	-.475	.098	-3.105	.004
9	-.160	-.611	-1.593	-.386	-1.756	-1.302	-.695	-3.957	-.017
10	-.170	-1.163	-1.071	-.565	-1.823	-1.888	-1.386	-3.868	.068
11	-.230	-1.071	-.900	-.830	-1.310	-2.896	-2.149	-3.317	.035
12	-.313	-.892	-.794	-1.203	-1.064	-1.533	-2.914	-2.901	.072
13	-.439	.303	.391	-1.125	.285	-2.300	-3.311	.680	.079
14	-.580	.503	.572	-.903	.472	-1.678	-3.235	.792	-.070
15	-1.309	.851	.827	.277	.612	.755	-2.634	-4.386	-.229
16	-.779	.806	.782	.437	.462	.800	-2.137	-4.443	-.277
17	.580	.583	.487	.614	.228	.720	.609	-4.891	-.248
18	-.873	.356	.216	.499	.012	.606	.937	.742	-.202
19	.656	-.255	-.355	.290	-.259	.471	.795	-5.010	-.019
20	-.416	-.363	-.732	.094	-.374	.218	.258	-5.377	-.155
21	.375	-.996	-1.021	-.333	-.628	-2.086	-3.252	-6.120	-.221
22	-.236	-1.193	-.875	-.413	-1.341	-3.110	-1.382	-3.715	-.298
23	-.332	-.890	-.674	-.982	-2.189	-3.616	-4.348	-.142	-.475
24	-1.822	-.825	-.551	-1.460	-2.207	-3.512	-4.407	-2.604	-.723
25	.195	-.029	-.252	-1.511	-1.515	-2.992	-3.773	-.103	-.795
26	-2.199	-1.623	-.235	-1.097	-1.269	-2.522	-2.861	-2.206	-.246

TABLE 20

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -40°$					
1	-.093	-.248	-.924	-.349	-.026	.202	.311	.448	-.036
2	.008	-.171	-1.683	-.043	.475	.628	.618	.785	.713
3	.101	-.169	-2.717	.114	.378	.588	.663	.738	.645
4	.117	-.377	-2.586	.225	.251	.448	.625	.658	.359
5	.064	-.512	-1.994	.116	.150	.350	.552	.495	.201
6	-.026	-.631	-1.733	.076	.055	.260	.450	.108	.078
7	-.237	.419	.331	.055	-.164	.046	.313	-.558	-.263
8	-.229	.724	.598	-.086	-.208	-.278	.116	-.902	-.195
9	.527	.506	.307	-.022	-.465	-.462	-.412	-1.403	-.219
10	.608	.147	-.116	-.094	-.545	-.746	-.534	-2.423	-.219
11	.543	-.101	-.434	-.147	-.418	-1.406	-.859	-3.658	-.191
12	.453	-.254	-.516	-.214	-.301	-.844	-1.259	-2.652	-.177
13	.346	-.367	-.602	-.245	.115	-1.352	-1.725	.583	-.151
14	.223	-.353	-.498	-.216	.360	-.892	-2.159	.810	.086
15	.038	-.484	-.480	-.171	.533	.698	-2.120	-5.793	-.179
16	-.139	-.780	-.763	.149	.416	.754	-1.458	-1.016	-.432
17	-.145	-.921	-.669	.406	.263	.686	.518	-2.133	-.512
18	.223	-1.016	-.464	.294	.133	.580	.863	.628	-.195
19	.038	.240	.191	.198	-.004	.458	.753	-8.765	-.175
20	.513	.605	.363	.133	-.178	.236	.279	-1.295	-.414
21	-.040	.347	.171	-.169	-.236	-.686	-3.155	-6.155	-.313
22	.704	.000	-.054	-.133	-.412	-1.072	-.534	-3.918	-.416
23	-.141	-.198	-.221	-.157	-.834	-1.642	-1.285	-.061	-.590
24	-.966	-.357	-.255	-.255	-.923	-2.414	-2.482	-1.980	-.829
25	.233	.101	-.247	-.335	-.667	-2.922	-5.044	-.022	-.910
26	-1.487	-.782	-.247	-.257	-.491	-2.036	-2.546	-1.427	-.255
				$\delta_r = -30°$					
1	-.067	-.183	-.700	-.296	-.018	.196	.304	.460	-.064
2	.026	-.118	-1.050	-.151	.500	.629	.617	.796	.735
3	.097	-.075	-1.664	.123	.380	.593	.700	.733	.669
4	.097	-.193	-1.791	.304	.237	.444	.664	.685	.401
5	.060	-.310	-1.511	.187	.124	.340	.569	.463	.226
6	-.016	-.344	-1.425	.109	.033	.248	.460	.060	.066
7	-.163	.517	.250	.067	-.184	.022	.334	-.633	-.261
8	-.192	.721	.421	-.091	-.269	-.299	.117	-1.025	-.200
9	.470	.415	.125	-.060	-.590	-.485	-.472	-1.550	-.226
10	.502	.079	-.153	-.093	-.702	-.766	-.595	-2.746	-.220
11	.415	-.153	-.324	-.141	-.543	-1.452	-.899	-3.977	-.178
12	.339	-.248	-.348	-.206	-.380	-.874	-1.328	-2.950	-.144
13	.236	-.287	-.471	-.240	.076	-1.473	-1.832	.590	-.110
14	.117	-.232	-.342	-.224	.357	-.974	-2.360	.787	.122
15	-.077	-.261	-.268	-.139	.551	.705	-2.358	-5.969	-.200
16	-.194	-.418	-.425	.169	.408	.760	-1.630	-1.133	-.473
17	-.062	-.487	-.447	.462	.241	.682	.504	-2.440	-.537
18	.095	-.542	-.304	.333	.112	.558	.877	.656	-.202
19	.071	.328	.101	.214	-.055	.448	.759	-9.437	-.148
20	.373	.633	.187	.129	-.243	.212	.245	-1.458	-.459
21	-.018	.281	.004	-.161	-.298	-.692	-3.453	-6.819	-.321
22	.601	-.073	-.151	-.165	-.504	-1.088	-.526	-4.125	-.409
23	-.188	-.206	-.231	-.214	-.988	-1.617	-1.348	-.127	-.599
24	-1.109	-.318	-.225	-.341	-1.086	-2.434	-2.626	-2.219	-.854
25	.185	.081	-.268	-.413	-.790	-3.169	-5.561	-.075	-.934
26	-1.690	-.943	-.252	-.315	-.610	-2.242	-2.785	-1.627	-.263
				$\delta_r = -20°$					
1	-.024	-.107	-.463	-.230	.000	.170	.319	.408	-.066
2	.059	-.050	-.495	-.029	.527	.626	.640	.797	.719
3	.127	.048	-.700	.170	.399	.613	.712	.748	.651
4	.141	-.053	-.917	.361	.240	.436	.667	.668	.373
5	.103	-.143	-.881	.254	.106	.346	.572	.439	.203
6	.050	-.168	-.684	.152	-.010	.229	.457	-.020	.062
7	-.091	.404	.089	.102	-.230	-.035	.315	-.670	-.289
8	-.147	.495	.239	-.125	-.334	-.382	.091	-1.042	-.211
9	.364	.204	.012	-.068	-.764	-.579	-.504	-1.529	-.231
10	.384	-.083	-.149	-.119	-.872	-.914	-.625	-2.732	-.229
11	.339	-.202	-.221	-.172	-.682	-1.638	-.947	-5.163	-.183
12	.263	-.240	-.185	-.258	-.511	-.984	-1.397	-3.481	-.151
13	.154	-.182	-.350	-.289	.081	-1.675	-1.901	.509	-.082
14	.048	-.109	-.199	-.252	.361	-1.153	-2.535	.789	.066
15	-.149	-.040	-.056	-.100	.568	.671	-2.660	-7.692	-.247
16	-.214	-.150	-.185	.176	.428	.761	-1.850	-1.169	-.524
17	-.014	-.226	-.239	.494	.242	.681	.500	-2.247	-.576
18	.000	-.248	-.215	.363	.079	.566	.899	.581	-.237
19	.133	.242	.022	.227	-.098	.415	.774	-.481	-.203
20	.246	.426	.115	.137	-.295	.170	.196	-1.511	-.464
21	.042	.109	-.044	-.176	-.348	-.787	-3.809	-7.545	-.347
22	.430	-.145	-.177	-.191	-.625	-1.174	-.533	-5.231	-.450
23	-.222	-.204	-.231	-.277	-1.169	-1.748	-1.383	-.207	-.651
24	-1.168	-.238	-.215	-.432	-1.277	-2.628	-2.626	-2.626	-.898
25	.196	.032	-.258	-.527	-.971	-3.548	-6.407	-.129	-.958
26	-1.875	-1.089	-.256	-.395	-.741	-2.569	-3.051	-1.932	-.293

TABLE 20 Continued

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -10°$					
1	.020	-.031	-.196	-.146	-.008	.139	.250	.364	-.054
2	.094	.035	-.004	.072	.515	.643	.612	.807	.708
3	.166	.193	.097	.176	.412	.624	.740	.758	.651
4	.186	.099	-.115	.426	.219	.428	.674	.650	.357
5	.170	.041	-.130	.313	.066	.307	.564	.421	.190
6	.104	-.023	-.128	.195	-.068	.191	.453	-.073	.044
7	-.050	.259	.008	.084	-.295	-.096	.287	-.740	-.286
8	-.092	.294	.136	-.168	-.435	-.502	.029	-1.146	-.212
9	.263	.041	-.095	-.133	-.920	-.737	-.614	-1.669	-.234
10	.279	-.216	-.275	-.223	-1.031	-1.124	-.742	-2.996	-.210
11	.222	-.274	-.387	-.299	-.808	-1.944	-1.078	-5.616	-.161
12	.158	-.247	-.316	-.416	-.616	-1.181	-1.533	-3.744	-.111
13	.046	-.089	-.215	-.445	.064	-2.034	-2.118	.502	-.026
14	-.068	.006	-.077	-.375	.332	-1.432	-2.934	.783	.058
15	-.277	.200	.158	-.072	.592	.695	-3.192	-7.894	-.270
16	-.242	.121	.087	.160	.417	.781	-2.227	-1.297	-.575
17	.068	.025	-.174	.506	.227	.695	.424	-2.618	-.627
18	-.102	-.027	-.204	.387	.021	.552	.890	.573	-.240
19	.214	.150	-.059	.201	-.134	.392	.762	-.667	-.185
20	.138	.261	.051	.104	-.357	.104	.122	-1.681	-.458
21	.074	-.047	-.126	-.219	-.419	-.934	-4.444	-8.307	-.341
22	.287	-.255	-.221	-.275	-.722	-1.335	-.597	-5.516	-.454
23	-.311	-.272	-.235	-.418	-1.334	-1.964	-1.516	-.299	-.633
24	-1.407	-.257	-.245	-.637	-1.462	-3.040	-2.791	-2.898	-.891
25	.170	-.021	-.255	-.729	-1.085	-4.317	-7.688	-.197	-.954
26	-2.214	-1.245	-.257	-.563	-.854	-3.070	-3.547	-2.161	-.294
				$\delta_r = 0°$					
1	.062	.012	.010	-.061	.024	.144	.204	.311	-.061
2	.151	.124	.211	.132	.515	.656	.575	.806	.721
3	.223	.332	.581	.193	.455	.638	.744	.762	.644
4	.239	.272	.442	.464	.235	.447	.685	.657	.368
5	.223	.182	.355	.389	.070	.335	.575	.404	.192
6	.159	.118	.248	.224	-.054	.203	.444	.133	.028
7	.034	.056	-.049	.098	-.334	-.083	.272	-.786	-.283
8	-.046	.084	.000	-.177	-.509	-.543	-.018	-1.216	-.212
9	.129	-.096	-.324	-.240	-1.022	-.738	-.673	-1.729	-.214
10	.183	-.286	-.503	-.350	-1.157	-1.122	-.767	-3.085	-.170
11	.147	-.282	-.702	-.448	-.920	-1.972	-1.106	-5.994	-.121
12	.064	-.256	-.653	-.568	-.714	-1.203	-1.583	-4.000	-.051
13	-.030	-.016	-.057	-.580	.062	-2.122	-2.178	.368	.044
14	-.141	.094	.049	-.487	.310	-1.461	-3.047	.774	.038
15	-.342	.362	.341	-.037	.628	.697	-3.454	-8.198	-.289
16	-.239	.326	.304	.145	.455	.791	-2.476	-1.380	-.566
17	.161	.218	.012	.527	.225	.697	.354	-2.760	-.610
18	-.225	.112	-.086	.413	.036	.571	.886	.412	-.222
19	.278	.000	-.105	.226	-.161	.394	.750	-.750	-.166
20	-.028	.038	-.053	.073	-.437	.087	.055	-1.774	-.451
21	.155	-.208	-.283	-.275	-.517	-.919	-4.800	-8.374	-.319
22	.123	-.356	-.331	-.350	-.789	-1.343	-.624	-5.840	-.444
23	-.366	-.334	-.343	-.556	-1.433	-1.959	-1.538	-.347	-.614
24	-1.586	-.356	-.322	-.747	-1.602	-3.055	-2.681	-3.119	-.869
25	.129	-.016	-.255	-.900	-1.213	-4.461	-8.452	-.251	-.931
26	-2.477	-1.464	-.251	-.705	-.942	-3.205	-3.840	-2.366	-.279
				$\delta_r = 10°$					
1	.052	.020	.076	.017	.046	.105	.173	.232	-.053
2	.163	.157	.268	.153	.503	.634	.553	.792	.712
3	.245	.407	.740	.198	.455	.644	.736	.784	.640
4	.287	.404	.728	.494	.237	.447	.694	.687	.370
5	.293	.291	.577	.440	.042	.316	.579	.383	.188
6	.247	.175	.440	.256	-.109	.176	.433	-.181	.055
7	.120	-.100	-.207	.110	-.378	-.134	.247	-.847	-.272
8	.016	-.065	-.399	-.198	-.541	-.583	-.040	-1.282	-.194
9	.028	-.238	-.716	-.320	-1.119	-.794	-.736	-1.784	-.196
10	.094	-.411	-.789	-.438	-1.272	-1.170	-.853	-3.196	-.166
11	.090	-.398	-1.053	-.562	-1.010	-2.047	-1.171	-6.454	-.102
12	.032	-.358	-1.180	-.671	-.791	-1.269	-1.676	-4.252	-.041
13	-.060	.026	.025	-.696	.068	-2.263	-2.330	.312	.076
14	-.143	.163	.141	-.572	.280	-1.581	-3.254	.772	.027
15	-.426	.478	.440	.048	.624	.652	-3.684	-8.435	-.295
16	-.259	.490	.468	.147	.455	.783	-2.648	-1.444	-.583
17	.299	.360	.145	.535	.227	.696	.316	-3.010	-.620
18	-.241	.203	.002	.434	.018	.557	.875	.323	-.229
19	.345	-.148	-.178	.240	-.217	.391	.753	-.817	-.184
20	-.068	-.193	-.280	.085	-.495	.065	.044	-1.937	-.440
21	.163	-.433	-.513	-.295	-.553	-.951	-5.024	-8.897	-.329
22	.036	-.520	-.487	-.397	-.859	-1.381	-.696	-6.159	-.436
23	-.410	-.467	-.493	-.622	-1.537	-1.953	-1.604	-.401	-.618
24	-1.663	-.435	-.415	-.835	-1.716	-3.087	-2.887	-3.339	-.845
25	.122	-.071	-.264	-.948	-1.310	-4.676	-8.767	-.308	-.918
26	-2.614	-1.535	-.249	-.758	-1.028	-3.437	-4.020	-2.554	-.276

TABLE 20 Concluded

Pressure coefficients on the vertical fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 20°$; $\delta_e = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8	9
				$\delta_r = -20°$					
1	.061	.002	.106	.048	.073	.099	.132	.221	-.066
2	.162	.139	.214	.149	.444	.632	.514	.746	.692
3	.243	.485	.718	.188	.456	.638	.721	.781	.648
4	.298	.513	.818	.501	.226	.465	.684	.659	.360
5	.334	.382	.622	.467	.020	.324	.575	.401	.186
6	.296	.252	.404	.271	-.050	.187	.433	-.170	.054
7	.184	-.163	-.322	.107	-.429	-.151	.235	-.820	-.296
8	.057	-.133	-.754	-.250	-.653	-.614	-.049	-1.288	-.204
9	-.036	-.276	-1.094	-.392	-1.204	-.821	-.747	-1.765	-.212
10	-.030	-.471	-1.012	-.527	-1.357	-1.191	-.870	-3.194	-.162
11	-.038	-.467	-1.114	-.657	-1.085	-2.119	-1.202	-6.372	-.084
12	-.083	-.406	-1.386	-.794	-.853	-1.300	-1.717	-4.162	-.018
13	-.166	.040	.062	-.784	.065	-2.340	-2.370	.268	.080
14	-.265	.173	.190	-.675	.234	-1.616	-3.336	.763	.016
15	-.690	.555	.524	.030	.609	.644	-3.749	-8.014	-.322
16	-.366	.584	.570	.147	.448	.795	-2.711	-1.438	-.606
17	.370	.445	.286	.525	.198	.710	.243	-3.327	-.640
18	-.346	.270	.088	.444	-.018	.569	.860	.290	-.238
19	.395	-.193	-.252	.236	-.252	.364	.747	-.096	-.180
20	-.132	-.225	-.414	.071	-.534	.062	.026	-2.006	-.452
21	.184	-.473	-.682	-.333	-.619	-.974	-5.085	-8.679	-.326
22	-.075	-.588	-.628	-.479	-.937	-1.425	-.715	-5.939	-.432
23	-.425	-.523	-.580	-.693	-1.601	-2.066	-1.626	-.399	-.634
24	-1.698	-.473	-.448	-.950	-1.806	-3.292	-2.986	-3.295	-.876
25	.119	-.054	-.278	-1.061	-1.399	-4.781	-8.883	-.307	-.956
26	-2.662	-1.523	-.282	-.844	-1.099	-3.423	-4.069	-2.542	-.288
				$\delta_r = 30°$					
1	.048	.012	.177	.105	.077	.086	.119	.194	.002
2	.156	.206	.254	.188	.437	.607	.478	.733	.692
3	.257	.558	.660	.198	.482	.640	.715	.767	.635
4	.335	.612	.797	.534	.243	.453	.711	.680	.365
5	.379	.468	.577	.520	.036	.327	.589	.395	.204
6	.351	~~.296~~	~~.404~~	~~.338~~	~~-.126~~	~~.179~~	~~.445~~	~~-.171~~	~~.051~~
7	.255	-.170	-.324	.152	-.425	-.154	.265	-.824	-.287
8	.094	-.166	-.913	-.239	-.640	-.613	-.042	-1.266	-.196
9	-.108	-.366	-1.145	-.397	-1.217	-.842	-.721	-1.769	-.204
10	-.118	-.654	-.877	-.563	-1.352	-1.228	-.842	-3.287	-.155
11	-.182	-.670	-.738	-.668	-1.091	-2.128	-1.150	-6.227	-.079
12	-.236	-.550	-.680	-.759	-.866	-1.327	-1.648	-4.087	-.008
13	-.337	.072	.141	-.711	.077	-2.350	-2.300	.231	.079
14	-.437	.230	.250	-.609	.229	-1.660	-3.255	.752	.010
15	-1.040	.618	.600	.077	.617	.589	-3.670	-7.672	-.340
16	-.571	.698	.672	.152	.474	.767	-2.666	-1.436	-.652
17	.461	.516	.408	.545	.202	.704	.206	-3.556	-.676
18	-.563	.328	.187	.482	.012	.549	.830	.205	-.248
19	.437	-.164	-.254	.271	-.241	.360	.759	-9.653	-.204
20	-.307	-.212	-.465	.079	-.530	.051	.045	-2.079	-.424
21	.198	-.562	-.728	-.332	-.607	-1.025	-4.941	-8.436	-.324
22	-.194	-.734	-.577	-.490	-.931	-1.442	-.678	-5.734	-.424
23	-.447	-.576	-.467	-.702	-1.603	-2.082	-1.547	-.397	-.607
24	-1.784	-.540	-.278	-.917	-1.791	-3.309	-2.907	-3.231	-.855
25	.116	-.036	-.280	-1.022	-1.379	-4.772	-8.460	-.300	-.929
26	-2.776	-1.528	-.286	-.796	-1.103	-3.434	-3.960	-2.508	-.293
				$\delta_r = 40°$					
1	.039	.004	.220	.134	.090	.084	.110	.146	-.076
2	.173	.160	.330	.214	.428	.589	.450	.711	.708
3	.293	.569	.729	.194	.488	.659	.714	.788	.624
4	.395	.657	.705	.559	.242	.469	.694	.673	.346
5	.450	.519	.479	.549	.034	.339	.594	.401	.176
6	.417	.320	.295	.347	-.160	.194	.452	-.196	.039
7	.312	-.226	-.358	.176	-.458	-.162	.274	-.874	-.305
8	.139	-.242	-.953	-.257	-.666	-.635	-.034	-1.307	-.223
9	-.122	-.563	-.823	-.397	-1.262	-.834	-.736	-1.806	-.227
10	-.145	-.807	-.648	-.527	-1.388	-1.238	-.854	-3.457	-.160
11	-.230	-.647	-.627	-.623	-1.110	-2.158	-1.176	-6.333	-.082
12	-.299	-.575	-.578	-.752	-.882	-1.331	-1.673	-4.148	-.022
13	-.413	.090	.179	-.709	.054	-2.385	-2.339	.174	.057
14	-.546	.205	.275	-.607	.188	-1.667	-3.286	.752	-.004
15	-1.077	.655	.627	.090	.590	.581	-3.759	-7.611	-.339
16	-.568	.735	.733	.158	.474	.782	-2.684	-1.473	-.638
17	.536	.550	.473	.541	.196	.731	.183	-4.106	-.677
18	-.770	.337	.242	.489	-.012	.573	.832	.140	-.243
19	.487	-.203	-.293	.265	-.244	.385	.759	-9.399	-.198
20	-.418	-.253	-.540	.120	-.578	.080	.063	-2.353	-.452
21	.177	-.764	-.719	-.343	-.656	-1.018	-4.911	-8.573	-.331
22	-.171	-.696	-.558	-.473	-.982	-1.453	-.667	-5.731	-.444
23	-.428	-.591	-.413	-.699	-1.654	-2.110	-1.566	-.409	-.638
24	-1.731	-.561	-.305	-.912	-1.824	-3.393	-3.077	-3.295	-.883
25	.130	-.070	-.277	-1.010	-1.390	-4.810	-8.183	-.317	-.951
26	-2.654	-1.554	-.285	-.816	-1.122	-3.393	-3.968	-2.559	-.284

TABLE 21

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.474	.718	.596	.185	.056	-.073	-.149	-.283
2	.151	.553	.575	.234	-.074	-.236	-.248	-.406
3	.021	.345	.288	.201	-.243	-.255	-.284	-.635
4	.000	.252	.105	.125	-.461	-.600	-.423	-1.328
5	.038	.050	-.072	.006	-.404	-1.030	-.629	-2.471
6	.065	-.128	-.195	-.107	-.284	-1.178	-1.363	-1.801
7	-.055	-.592	-.747	-.101	.093	-.669	-1.597	.455
8	-.159	-.548	-.593	-.144	.169	.222	-1.077	.506
9	-.333	-.450	-.534	-.004	.145	.283	.310	.518
10	-.478	-.466	-.544	-.008	.131	.273	.353	.525
11	-.478	-.508	-1.626	-.019	.099	.257	.363	.527
12	-.459	-.529	-1.558	-.037	.060	.230	.355	.475
13	-.447	.578	.413	.002	-.006	.198	.339	-.566
14	-.447	.628	.136	.016	-.070	.099	.329	-1.176
15	-.681	.355	.261	.094	-.199	-.279	.304	-4.045
16	-.579	.135	.115	.111	-.362	-.426	.242	.660
17	.161	-.029	-.076	-.023	-.791	-.590	-.375	.746
18	-.480	-.198	-.211	-.105	-.620	-1.398	-.700	-.801
19	.143	-.550	-.439	-.232	-.396	-1.962	-.905	-5.430
20	-.470	-.492	-.407	-.203	.159	-1.402	-3.278	.777
21	.306	-.435	-.082	.016	.213	.430	-2.111	-3.758
22	-.556	-.435	-.404	.119	.221	.438	.544	-3.195
23	-.746	-.534	-.558	.103	.197	.430	.603	-.938
24	.052	-1.210	-.429	.092	.147	.422	.623	.320
25	-1.220	-.691	-.363	.090	.113	.414	.603	-1.070
26	.220	.095	-.082	.082	.016	.366	-1.720	.215
				$\delta_e = 30°$				
1	.491	.718	.431	.304	.364	.070	-.156	-.291
2	.283	.517	.468	.342	.239	-.095	-.266	-.416
3	.192	.315	.300	.282	.108	-.105	-.303	-.637
4	.161	.243	.115	.196	-.111	-.424	-.423	-1.248
5	.180	.063	-.045	.097	-.061	-.891	-.625	-2.639
6	.182	-.106	-.148	.016	.042	-1.107	-1.380	-1.912
7	.036	-.282	-1.754	.016	.372	-.576	-1.662	.443
8	-.082	-.225	-.437	-.061	.430	.350	-1.135	.496
9	.038	-.254	-2.425	.058	.417	.412	.315	.510
10	.080	-.350	-2.487	.041	.406	.411	.344	.525
11	.046	-.413	-3.006	.023	.380	.377	.353	.531
12	.019	-.509	-3.053	.023	.352	.354	.349	.471
13	-.009	.642	.331	.079	.307	.329	.344	-.574
14	-.042	.591	.131	.106	.246	.237	.326	-1.195
15	-.173	.352	.302	.225	.141	-.156	.305	-4.201
16	-.218	.192	.164	.212	.018	-.284	.245	.656
17	.180	.037	-.027	.063	-.377	-.428	-.384	.736
18	-.154	-.145	-.140	-.004	-.226	-1.193	-.720	-.816
19	.199	-.460	-.540	-.126	-.051	-1.920	-.934	-5.480
20	-.078	-.462	-.620	-.101	.429	-1.340	-3.392	.773
21	.315	-.530	-.057	.110	.472	.560	-2.181	-3.770
22	-.028	-.613	-.782	.198	.480	.574	.537	-3.424
23	-.721	-.658	-.733	.191	.465	.574	.606	-.984
24	.072	-.679	-.530	.178	.432	.562	.627	.320
25	-1.216	-.695	-.725	.182	.388	.551	.604	-1.133
26	.247	.110	-.080	.173	.318	.502	-1.776	.215
				$\delta_e = 20°$				
1	.386	.573	.322	.148	.027	-.116	-.202	-.354
2	.204	.323	.363	.156	-.172	-.294	-.317	-.488
3	.115	.133	.226	.043	-.337	-.311	-.361	-.703
4	.092	.087	.055	-.039	-.627	-.636	-.483	-1.313
5	.096	-.046	-.051	-.128	-.563	-1.145	-.654	-3.049
6	.084	-.153	-.109	-.218	-.422	-1.493	-1.513	-2.179
7	-.072	-.164	-1.039	-.195	.120	-.870	-1.951	.467
8	-.147	-.128	-.589	-.103	.199	.221	-1.313	.508
9	.041	-.180	-1.439	.043	.162	.292	.334	.520
10	.072	-.209	-1.554	.023	.132	.282	.365	.530
11	.029	-.250	-1.815	-.002	.081	.240	.371	.533
12	.008	-.275	-1.834	-.019	.017	.219	.363	.463
13	-.022	.532	.257	.016	-.048	.174	.350	-.671
14	-.047	.385	.062	.008	-.137	.066	.336	-1.337
15	-.164	.195	.179	.072	-.273	-.360	.295	-4.530
16	-.200	.054	.055	.021	-.439	-.505	.233	.675
17	.039	-.048	-.092	-.158	-.977	-.607	-.449	.750
18	-.143	-.147	-.142	-.245	-.801	-1.368	-.794	-.925
19	.078	-.292	-.335	-.401	-.551	-2.422	-.988	-5.943
20	-.076	-.277	-.345	-.360	.184	-1.745	-3.874	.805
21	.196	-.342	-.086	.049	.248	.435	-2.416	-4.075
22	-.029	-.395	-.464	.160	.240	.427	.550	-3.756
23	-.930	-.400	-.431	.140	.209	.431	.619	-1.124
24	.016	-.385	-.316	.123	.147	.424	.637	.309
25	-1.571	-.884	-.402	.101	.075	.400	.579	-1.305
26	.211	.072	-.076	.058	-.025	.350	-1.988	.197

TABLE 21 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 0°$				
1	.186	.223	.168	.027	-.086	-.122	-.288	-.455
2	.113	.074	-.049	-.096	-.341	-.330	-.416	-.613
3	.033	-.070	-.341	-.252	-.556	-.383	-.489	-.814
4	-.017	-.137	-.425	-.333	-.957	-.697	-.576	-1.161
5	-.045	-.192	-.458	-.415	-.916	-1.324	-.687	-4.162
6	-.085	-.160	-.466	-.526	-.716	-1.996	-1.607	-2.838
7	-.260	.110	.160	-.493	.200	-1.118	-2.694	.489
8	-.204	.254	.266	.086	.297	.384	-1.776	.545
9	.099	.228	.331	.247	.209	.447	.381	.549
10	.196	.201	.278	.254	.131	.433	.420	.547
11	.148	.155	.160	.227	.029	.373	.435	.536
12	.105	.122	.137	.172	-.076	.330	.410	.418
13	.060	.192	-.006	.121	-.174	.272	.393	-.805
14	.033	.054	-.065	.049	-.286	.132	.366	-1.594
15	-.027	-.103	-.280	-.004	-.436	-.384	.321	-5.104
16	-.105	-.239	-.307	-.162	-.648	-.555	.217	.696
17	-.210	-.230	-.348	-.372	-1.356	-.621	-.561	.754
18	.033	-.200	-.333	-.481	-1.194	-1.315	-.977	-1.172
19	-.138	.122	.023	-.720	-.832	-3.231	-1.124	-6.660
20	.089	.277	.137	-.661	.243	-2.229	-5.056	.809
21	.010	.259	-.043	.162	.311	.579	-2.990	-4.534
22	.165	.205	.088	.282	.297	.581	.594	-4.373
23	-1.256	.167	-.023	.264	.233	.571	.677	-1.476
24	-.078	.142	-.063	.207	.133	.546	.667	.257
25	-2.249	-1.142	.164	.129	.027	.520	.571	-1.685
26	.177	.124	-.053	.037	-.096	.437	-2.424	.147
				$\delta_e = -20°$				
1	-.012	-.185	-.862	-.143	-.202	-.315	-.391	-.555
2	-.004	-.264	-1.597	-.407	-.521	-.548	-.541	-.726
3	-.023	-.480	-2.070	-.612	-.777	-.623	-.612	-.914
4	-.079	-.628	-1.774	-.710	-1.277	-.891	-.700	-1.194
5	-.161	-.715	-1.432	-.838	-1.267	-1.668	-.717	-5.455
6	-.308	-.742	-1.288	-1.017	-1.019	-2.748	-1.450	-3.491
7	-.696	.139	.459	-.950	.294	-1.664	-3.521	.532
8	-.516	.397	.430	.280	.389	.320	-2.463	.597
9	.097	.484	.735	.429	.281	.402	.397	.597
10	.285	.416	.671	.471	.155	.377	.463	.587
11	.297	.316	.595	.440	.013	.295	.471	.547
12	.262	.197	.512	.351	-.132	.247	.438	.397
13	.215	-.335	-.459	.216	-.279	.171	.407	-.964
14	.151	-.530	-.482	.044	-.420	-.019	.372	-1.975
15	.076	-.775	-1.082	-.143	-.576	-.598	.306	-5.555
16	-.058	-.886	-1.198	-.375	-.813	-.759	.184	.735
17	-.446	-.902	-1.076	-.629	-1.695	-.800	-.694	.785
18	.260	-.848	-1.047	-.786	-1.584	-1.365	-1.149	-1.559
19	-.233	.245	.389	-1.089	-1.115	-4.283	-1.312	-7.516
20	.333	.507	.570	-1.046	.303	-3.130	-6.419	.854
21	-.066	.588	-.099	.284	.385	.526	-3.676	-5.094
22	.316	.501	.566	.405	.374	.515	.616	-4.931
23	-1.671	.403	.333	.388	.273	.495	.702	-1.931
24	-.167	.264	.121					.196
25	-3.141	-1.753	.652	.158	.019	.435	.550	-2.173
26	.178	-.010	-.088	.010	-.172	.320	-2.998	.088
				$\delta_e = -30°$				
1	.082	-.345	-1.108	-.190	-.245	-.351	-.421	-.591
2	.038	-.308	-2.103	-.487	-.573	-.589	-.578	-.764
3	.074	-.503	-2.833	-.737	-.867	-.656	-.647	-.967
4	.065	-.861	-2.086	-.838	-1.392	-.956	-.744	-1.078
5	.027	-1.283	-1.450	-.983	-1.386	-1.681	-.795	-5.760
6	-.114	-1.299	-1.259	-1.155	-1.133	-2.858	-1.589	-3.744
7	-.770	.173	.513	-1.087	.328	-1.726	-3.694	.502
8	-.470	.462	.529	.342	.431	.344	-2.570	.585
9	.321	.626	.800	.480	.309	.430	.413	.589
10	.536	.545	.704	.540	.162	.401	.475	.566
11	.605	.416	.483	.526	.008	.315	.484	.537
12	.595	.252	.346	.427	-.158	.259	.453	.388
13	.557	-.416	-.491	.251	-.311	.173	.422	-.983
14	.511	-.568	-.539	.048	-.456	-.036	.380	-1.942
15	.451	-1.000	-1.294	-.172	-.631	-.618	.306	-5.915
16	.266	-1.318	-1.443	-.443	-.882	-.775	.165	.738
17	-.272	-1.356	-1.147	-.710	-1.807	-.833	-.733	.789
18	.652	-1.212	-1.020	-.874	-1.705	-1.336	-1.207	-1.641
19	-.010	.333	.533	-1.195	-1.208	-4.459	-1.426	-7.917
20	.711	.592	.697	-1.162	.340	-3.221	-6.634	.851
21	.023	.750	-.037	.323	.427	.549	-3.802	-5.004
22	.622	.651	.691	.439	.396	.537	.616	-5.174
23	-1.454	.495	.449	.443	.301	.518	.702	-2.099
24	.091	.314	.202	.342	.158	.486	.682	.178
25	-2.956	-1.857	.803	.178	.004	.426	.516	-2.345
26	.456	-.015	-.042	.008	-.199	.309	-3.118	.085

TABLE 21 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -40°$				
1	-.220	-.494	-1.320	-.224	-.281	-.365	-.445	-.612
2	-.347	-.390	-2.546	-.552	-.605	-.549	-.596	
3	-.361	-.533	-2.583	-.768	-.906	-.678	-.686	-1.018
4	-.369	-1.450	-1.815	-.893	-1.457	-.984	-.771	-1.418
5	-.375	-1.793	-1.405	-1.027	-1.420	-1.697	-.850	-5.496
6	-.386	-1.374	-1.299	-1.197	-1.152	-2.771	-1.807	-3.573
7	-1.205	.213	.539	-1.121	.352	-1.725	-3.609	.541
8	-1.071	.510	.517	.413	.473	.344	-2.484	.618
9	-.004	.738	.834	.524	.332	.438	.420	.608
10	.261	.667	.726	.598	.158	.402	.502	.588
11	.388	.545	.234	.602	.002	.316	.490	.545
12	.413	.335	.015	.509	-.158	.262	.469	.386
13	.384	-.424	-.629	.308	-.344	.176	.438	-1.024
14	.357	-.550	-.722	.092	-.479	-.037	.389	-2.100
15	.309	-1.609	-1.564	-.216	-.658	-.621	.326	-5.918
16	.066	-2.161	-1.633	-.462	-.924	-.809	.162	.745
17	-.556	-1.434	-1.122	-.733	-1.877	-.848	-.756	.798
18	.523	-1.275	-.903	-.897	-1.707	-1.377	-1.277	-1.773
19	-.402	.444	.568	-1.246	-1.225	-4.238	-1.482	-8.135
20	.583	.672	.736	-1.193	.354	-3.141	-6.480	.876
21	-.425	.876	-.112	.376	.441	.551	-3.783	-5.175
22	.293	.789	.730	.480	.428	.535	.623	-5.071
23	-1.689	.609	.452	.483	.328	.520	.705	-1.951
24	-.174	.395	.178	.382	.168	.482	.691	.173
25	-3.035	-1.824	.853	.207	-.004	.434	.523	-2.225
26	.205	.010	-.102	.027	-.207	.322	-3.070	.084

TABLE 22

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.149	-.340	.194	.154	.098	.044	-.008	-.107
2	.080	-.322	.206	.136	.104	-.002	-.051	-.183
3	.100	-.607	.389	.144	.060	-.036	-.097	-.270
4	.161	-.972	.401	.208	-.023	-.074	-.136	-.396
5	.161	-1.006	.399	.319	-.281	-.086	-.154	-.461
6	.193	-.921	.220	.257	-.360	-.237	-.162	-1.998
7	.265	.387	-.397	.118	-.006	-.906	-.176	.165
8	.281	.568	-.262	-.100	.027	.028	-1.360	.207
9	-.177	.619	-.276	-.056	.040	.070	.077	.229
10	-.235	.609	-.391	-.070	.048	.076	.097	.280
11	-.213	.546	-1.446	-.072	.048	.082	.115	.340
12	-.235	.438	-1.538	-.070	.038	.084	.121	.421
13	-.281	-.287	.173	-.038	.077	.088	.140	-.318
14	-.331	-.375	.002	-.006	.075	.080	.154	-.640
15	-.408	-.908	.355	.120	.040	-.108	.170	-2.453
16	-.367	-1.232	.369	.120	-.002	-.177	.178	.282
17	.333	-.976	.272	.136	-.090	-.229	-.182	.459
18	-.329	-.957	.079	.152	-.560	-.243	-.304	-.495
19	.267	.566	-.304	.056	-.498	-.237	-.494	-1.837
20	-.257	.749	-.325	-.084	.029	-1.516	-.915	.445
21	.155	.786	-.075	-.030	.050	.145	-2.014	-1.219
22	-.251	.747	-.357	.012	.063	.157	.204	-2.765
23	-.645	.674	-.466	.002	.060	.177	.277	-.911
24	.096	.552	-.369	.012	.063	.209	.350	.350
25	-.492	-.795	-.284	.030	.050	.229	.486	-1.105
26	.120	.065	-.036	.040	.025	.267	-2.085	.241
				$\delta_e = 30°$				
1	.147	.232	.196	.150	.075	.004	-.046	-.127
2	.088	.182	.188	.150	.079	-.054	-.086	-.216
3	.072	.306	.329	.160	.028	-.083	-.122	-.292
4	.084	.346	.391	.202	-.046	-.105	-.157	-.425
5	.074	.462	.385	.251	-.337	-.103	-.169	-.466
6	.114	.378	.282	.164	-.423	-.254	-.179	-2.006
7	.227	-.294	-.760	.018	.008	-1.000	-.157	.155
8	.225	-.292	-.339	-.096	.028	.028	-1.432	.198
9	-.048	-.264	-.546	-.058	.040	.067	.074	.230
10	-.179	-.378	-.694	-.078	.040	.073	.098	.270
11	-.211	-.450	-1.897	-.086	.040	.081	.112	.333
12	-.261	-.538	-2.518	-.092	.018	.081	.122	.417
13	-.311	.236	.188	-.044	.044	.083	.133	-.333
14	-.363	.208	.010	-.026	.036	.071	.143	-.659
15	-.367	.406	.335	.120	.008	-.141	.163	-2.462
16	-.269	.416	.385	.120	-.028	-.190	.175	.306
17	.207	.566	.365	.126	-.099	-.250	-.201	.470
18	-.394	.430	.250	.108	-.625	-.272	-.321	-.498
19	.153	-.276	-.290	.030	-.550	-.240	-.510	-1.808
20	-.271	-.224	-.323	-.128	.030	-1.621	-.928	.431
21	.135	-.250	-.077	-.024	.052	.151	-2.050	-1.183
22	-.271	-.368	-.371	.014	.060	.167	.197	-2.786
23	-.717	-.504	-.464	-.008	.054	.177	.281	-.935
24	.088	-.594	-.421	.002	.052	.208	.345	.331
25	-.703	-.848	-.317	.014	.046	.232	.482	-1.151
26	.116	.050	-.077	.032	.012	.262	-2.110	.236
				$\delta_e = 20°$				
1	.182	.229	.194	.131	.051	-.018	-.066	-.151
2	.166	.173	.184	.124	.043	-.064	-.110	-.233
3	.150	.249	.357	.131	.002	-.100	-.152	-.318
4	.158	.269	.377	.149	-.073	-.118	-.184	-.447
5	.166	.331	.509	.161	-.395	-.110	-.188	-.529
6	.190	.209	.481	.076	-.472	-.408	-.180	-2.012
7	.237	-.078	-1.020	-.060	.000	-.964	-.299	.167
8	.150	-.070	-.196	-.120	.012	.034	-1.473	.217
9	.077	-.110	-1.379	-.088	.024	.078	.086	.243
10	.111	-.167	-1.493	-.114	.022	.088	.110	.272
11	.087	-.205	-1.892	-.120	.024	.088	.130	.346
12	.061	-.267	-2.138	-.108	.010	.096	.134	.427
13	.043	.229	.174	-.062	.010	.096	.144	-.368
14	.024	.193	.028	-.026	.010	.078	.156	-.714
15	-.024	.313	.255	.100	-.020	-.165	.172	-2.765
16	-.103	.347	.333	.084	-.053	-.213	.176	.326
17	.196	.412	.321	.084	-.121	-.265	-.228	.491
18	-.061	.259	.158	.060	-.684	-.267	-.353	-.551
19	.162	-.207	-.309	-.026	-.571	-.317	-.553	-2.109
20	.012	-.249	-.413	-.203	.014	-1.679	-1.076	.453
21	.160	-.309	-.054	-.032	.047	.165	-2.148	-1.404
22	.051	-.357	-.487	.004	.049	.185	.220	-2.901
23	-.745	-.396	-.391	-.014	.053	.201	.299	-.940
24	.103	-.386	-.293	.301	.156	.476	.678	.354
25	-.684	-.892	-.441	.010	.040	.247	.505	-1.161
26	.119	.048	-.056	.014	.006	.281	-2.070	.235

TABLE. 22 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 0°$				
1	.145	.085	.082	.000	-.049	-.117	-.161	-.225
2	.109	.038	-.008	-.024	-.066	-.169	-.202	-.300
3	.101	.040	.002	-.022	-.107	-.189	-.239	-.382
4	.093	.000	-.054	-.034	-.181	-.196	-.269	-.498
5	.091	-.103	-.205	-.060	-.641	-.169	-.261	-.602
6	.081	-.188	-.342	-.168	-.706	-.467	-.227	-2.137
7	-.038	.081	.175	-.349	.099	-1.253	-.455	.184
8	-.117	.077	.091	.066	.111	.074	-1.806	.227
9	.127	.063	.193	.110	.096	.115	.131	.265
10	.111	.073	.169	.096	.076	.119	.155	.298
11	.075	.055	.091	.088	.045	.109	.167	.349
12	.077	.045	.064	.076	.002	.101	.169	.429
13	.077	.067	.006	.072	-.096	.095	.175	-.431
14	.067	.022	-.038	.042	-.094	.068	.180	-.767
15	.016	.030	-.012	-.036	-.121	-.245	.196	-2.929
16	-.042	-.024	-.040	-.046	-.142	-.288	.190	.322
17	.002	-.128	-.074	-.058	-.220	-.339	-.316	.488
18	.030	-.219	-.205	-.086	-.984	-.335	-.463	-.618
19	.060	.075	.036	-.192	-.780	-.416	-.676	-2.182
20	.046	.093	.058	-.459	.105	-1.879	-1.355	.447
21	.069	.077	-.036	.082	.119	.187	-2.424	-1.500
22	.069	.057	.048	.122	.123	.196	.257	-3.033
23	-.933	.063	-.036	.108	.105	.212	.335	-1.049
24	.073	.061	-.062	.096	.078	.233	.398	.351
25	-1.141	-1.362	.076	.070	.045	.265	.535	-1.375
26	.135	.049		.040	-.014	.280	-2.190	.225
				$\delta_e = -20°$				
1	.064	-.104	-.597	-.219	-.218	-.216	-.246	-.318
2	-.008	-.124	-.677	-.270	-.238	-.283	-.294	-.416
3	-.038	-.177	-.990	-.281	-.265	-.292	-.349	-.501
4	-.098	-.293	-1.482	-.318	-.384	-.265	-.347	-.583
5	-.156	-.569	-2.062	-.363	-1.067	-.234	-.308	-1.266
6	-.156	-.813	-2.543	-.559	-1.059	-.867	-.224	-2.252
7	-.470	.238	.496	-.840	.202	-1.542	-1.045	.264
8	-.394	.358	.348	.281	.216	.162	-1.969	.303
9	.192	.360	.603	.340	.166	.185	.201	.328
10	.212	.356	.599	.336	.099	.187	.216	.363
11	.168	.321	.609	.332	.036	.162	.226	.410
12	.148	.250	.613	.281	-.040	.140	.236	.472
13	.120	-.234	-.362	.199	-.206	.121	.224	-.571
14	.100	-.254	-.232	.086	-.228	.066	.224	-1.002
15	.060	-.280	-.545	-.197	-.250	-.339	.228	-4.117
16	-.032	-.409	-.831	-.227	-.257	-.388	.212	.423
17	-.186	-.884	-1.039	-.271	-.390	-.429	-.409	.571
18	.200	-1.037	-1.354	-.297	-1.465	-.361	-.571	-.808
19	-.132	.337	.428	-.457	-1.073	-.871	-.805	-3.313
20	.208	.470	.533	-.869	.184	-2.166	-2.138	.544
21	-.048	.480	-.062	.230	.204	.246	-2.673	-2.435
22	.252	.463	.525	.268	.194	.257	.322	-3.489
23	-1.188	.400	.366	.254	.150	.261	.396	-1.167
24	.048	.327	.156	.211	.099	.279	.454	.369
25	-1.846	-1.752	.554	.131	.040	.294	.565	-1.509
26	.158	.049	-.056	.047	-.053	.304	-2.228	.241
				$\delta_e = -30°$				
1	-.056	-.227	-.942	-.303	-.254	-.245	-.287	-.364
2	-.103	-.208	-1.091	-.362	-.296	-.314	-.345	-.457
3	-.105	-.494	-1.369	-.390	-.329	-.320	-.380	-.542
4	-.159	-.720	-1.498	-.418	-.482	-.296	-.398	-.593
5	-.343	-1.027	-1.820	-.457	-1.210	-.260	-.355	-1.561
6	-.502	-1.053	-1.726	-.677	-1.167	-.984	-.269	-2.354
7	-1.254	.335	.529	-1.010	.258	-1.668	-1.022	.289
8	-.877	.471	.477	.360	.268	.193	-2.124	.332
9	.202	.498	.666	.432	.210	.217	.209	.368
10	.278	.484	.612	.465	.129	.215	.221	.395
11	.244	.433	.436	.444	.046	.181	.239	.447
12	.232	.327	.347	.378	-.050	.169	.225	.484
13	.198	-.418	-.502	.257	-.252	.131	.229	-.628
14	.153	-.373	-.347	.113	-.278	.068	.227	-1.081
15	.099	-.576	-.824	-.259	-.298	-.374	.215	-4.514
16	-.067	-.982	-1.052	-.287	-.306	-.425	.205	.425
17	-.567	-1.141	-1.068	-.327	-.466	-.447	-.466	.585
18	.302	-1.459	-1.268	-.362	-1.609	-.372	-.622	-.883
19	-.258	.469	.535	-.547	-1.171	-1.014	-.855	-3.684
20	.329	.620	.637	-1.000	.224	-2.292	-2.199	.571
21	-.137	.663	-.056	.289	.242	.270	-2.779	-2.706
22	.349	.616	.608	.341	.218	.288	.317	-3.723
23	-1.268	.543	.436	.325	.187	.284	.388	-1.235
24	.048	.427	.232	.257	.119	.300	.450	.379
25	-1.940	-1.943	.658	.170	.044	.320	.570	-1.597
26	.171	.067	-.064	.069	-.058	.316	-2.335	.241

TABLE 22 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -40°$				
1	-.303		-.659	-.287	-.236	-.246	-.270	-.348
2	-.275		-.752	-.335	-.278	-.323	-.327	-.444
3	-.325		-.956	-.374	-.306	-.323	-.366	-.520
4	-.410		-1.089	-.400	-.474	-.293	-.382	-.586
5	-.533		-1.073	-.424	-1.218	-.252	-.348	-1.464
6	-.727		-.911	-.616	-1.159	-.988	-.266	-2.314
7	-1.327		.594	-.964	.294	-1.673	-.858	.288
8	-.907		.588	.444	.323	.211	-2.209	.320
9	.172		.729	.515	.250	.240	.226	.352
10	.307		.667	.527	.165	.226	.244	.396
11	.265		.315	.533	.077	.191	.264	.438
12	.240		.105	.473	-.028	.171	.250	.482
13	.216		-.473	.333	-.240	.152	.252	-.610
14	.182		-.335	.198	-.264	.083	.244	-1.050
15	.160		-.784	-.244	-.286	-.374	.244	-4.336
16	.002		-.986	-.265	-.286	-.421	.224	.430
17	-.844		-.756	-.309	-.464	-.447	-.441	.588
18	.402		-.778	-.337	-1.625	-.362	-.602	-.856
19	-.450		.594	-.531	-1.163	-1.035	-.825	-3.542
20	.404		.705	-1.010	.262	-2.285	-2.033	.562
21	-.372		-.081	.341	.278	.278	-2.760	-2.596
22	.422		.663	.394	.262	.289	.317	-3.632
23	-1.265		.481	.378	.220	.299	.402	-1.208
24	.069		.295	.327	.145	.305	.457	.372
25	-2.061		.719	.212	.060	.323	.571	-1.584
26	.196		-.093	.101	-.042	.319	-2.337	.244

TABLE 23

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 0°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.133	.341	.444	.366	.179	.069	.026	.018
2	.165	.457	.560	.428	.179	.045	.012	.010
3	.149	.525	.611	.458	.154	.049	.004	.008
4	.137	.563	.605	.476	.122	.039	.016	.016
5	.147	.580	.546	.442	.087	.043	.026	.034
6	.188	.543	.413	.354	.063	.041	.024	.091
7	.204	-.329	-.413	.270	-.150	.045	.032	-.159
8	.139	-.302	-.317	-.216	-.146	-.174	.034	-.167
9	-.339	-.339	-.349	-.202	-.122	-.166	-.164	-.191
10	-.327	-.402	-.450	-.216	-.093	-.148	-.172	-.177
11	-.317	-.355	-1.802	-.214	-.091	-.120	-.156	-.195
12	-.367	-.671	-3.177	-.226	-.171	-.126	-.154	-.217
13	-.415	.525	.419	-.218	.122	-.114	-.150	.022
14	-.450	.659	.212	-.250	.118	-.118	-.152	.052
15	-.617	.692	.597	.252	.104	.012	-.128	.612
16	-.498	.702	.597	.270	.085	.012	-.130	-.171
17	.343	.733	.550	.280	.069	.022	.000	-.191
18	-.435	.686	.415	.230	.063	.018	-.008	.060
19	.300	-.298	-.359	.190	.051	.037	-.008	.632
20	-.375	-.267	-.365	.146	-.142	.061	.048	-.147
21	.262	-.310	-.050	-.168	-.140	-.174	.535	.614
22	-.343	-.388	-.437	-.164	-.128	-.160	-.158	.573
23	.040	-.459	-.681	-.174	-.118	-.162	-.186	.024
24	-.117	-1.722	-.720	-.152	-.089	-.150	-.194	-.205
25	.032	.045	-.367	-.134	-.081	-.146	-.204	.078
26	-.109	-.086	-.052	-.128	-.100	-.130	.565	-.123
				$\delta_e = 30°$				
1	.103	.252	.400	.280	.125	.036	.014	-.024
2	.121	.310	.506	.321	.125	.002	.010	-.028
3	.079	.376	.553	.337	.104	.006	-.002	-.026
4	.056	.392	.579	.341	.078	.004	.006	-.014
5	.071	.427	.589	.317	.058	.002	.020	-.004
6	.119	.400	.569	.250	.034	.014	.024	.040
7	.131	-.302	-.541	.193	-.141	.018	.024	-.160
8	.067	-.250	-.295	-.171	-.139	-.186	.043	-.176
9	-.212	-.304	-.547	-.157	-.122	-.152	-.151	-.182
10	-.248	-.388	-.673	-.177	-.098	-.142	-.157	-.182
11	-.282	-.457	-2.144	-.189	-.088	-.116	-.157	-.188
12	-.333	-1.050	-3.862	-.191	-.110	-.112	-.151	-.196
13	-.377	.382	.392	-.183	.070	-.104	-.147	-.018
14	-.421	.495	.203	-.189	.064	-.102	-.141	-.004
15	-.498	.549	.539	.191	.060	-.020	-.120	.619
16	-.601	.567	.565	.209	.038	-.024	-.122	-.160
17	.212	.575	.531	.207	.038	-.016	.010	-.192
18	-.411	.517	.411	.183	.034	-.010	-.018	.008
19	.183	-.231	-.283	.148	.028	-.002	-.004	.637
20	-.327	-.213	-.323	.114	-.141	.012	.055	-.124
21	.163	-.296	-.035	-.130	-.143	-.152	.532	.611
22	-.274	-.380	-.413	-.124	-.133	-.152	-.149	.599
23	.012	-.618	-.589	-.132	-.122	-.142	-.173	.008
24	-.095	-.970	-.618	-.118	-.096	-.134	-.183	-.186
25	-.006	.018	-.344	-.104	-.086	-.120	-.206	.036
26	-.109	-.091	-.033	-.093	-.080	-.104	.546	-.124
				$\delta_e = 20°$				
1	.149	.185	.350	.192	.085	.016	-.022	-.024
2	.147	.239	.454	.222	.089	-.010	-.022	-.038
3	.117	.280	.513	.230	.073	.000	-.032	-.038
4	.119	.312	.595	.236	.061	-.016	-.020	-.028
5	.135	.310	.650	.216	.047	-.010	-.010	-.024
6	.180	.276	.639	.172	.030	-.002	-.008	.016
7	.147	-.066	-.707	.126	-.122	.004	.004	-.132
8	.036	-.105	-.167	-.160	-.122	-.163	.012	-.150
9	.028	-.143	-1.193	-.166	-.110	-.153	-.151	-.152
10	-.036	-.225	-1.420	-.188	-.091	-.147	-.155	-.152
11	-.042	-.368	-2.020	-.204	-.073	-.115	-.149	-.146
12	-.059	-.662	-2.778	-.204	-.094	-.117	-.145	-.158
13	-.087	.286	.287	-.168	.037	-.099	-.141	-.034
14	-.067	.378	.145	-.144	.030	-.091	-.133	-.020
15	-.172	.431	.430	.128	.041	-.030	-.116	.637
16	-.475	.425	.448	.146	.031	-.032	-.112	-.128
17	.178	.439	.389	.134	.030	-.026	-.020	-.164
18	-.133	.376	.281	.112	.033	-.016	-.036	-.020
19	.160	-.149	-.246	.092	.022	-.006	-.036	.649
20	-.083	-.129	-.354	.066	-.120	.012	.020	-.092
21	.139	-.252	-.024	-.128	-.118	-.161	.564	.639
22	-.050	-.394	-.525	-.124	-.112	-.149	-.145	.603
23	.010	-.559	-.517	-.134	-.112	-.147	-.167	.010
24	-.087	-.781	-.444	-.112	-.083	-.145	-.173	-.160
25	-.006	.018	-.415	-.092	-.065	-.133	-.185	.018
26	-.093	-.097	-.029	-.082	-.071	-.111	.560	-.090

[redacted]

TABLE 23 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 0°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 10°$				
1	.147	.127	.442	.099	.024	-.028	-.054	-.056
2	.169	.141	.476	.121	.020	-.044	-.056	-.070
3	.139	.167	.474	.111	.008	-.044	-.058	-.066
4	.129	.163	.508	.119	.016	-.040	-.046	-.066
5	.127	.163	.520	.107	.008	-.042	-.032	-.062
6	.155	.153	.556	.095	-.002	-.018	-.028	-.032
7	.095	.022	-.371	.075	-.093	-.016	-.018	-.112
8	.006	-.002	-.038	-.101	-.093	-.137	-.008	-.132
9	.153	-.054	-.612	-.087	-.081	-.123	-.124	-.128
10	.139	-.099	-.667	-.107	-.052	-.109	-.133	-.124
11	.119	-.151	-.928	-.105	-.052	-.095	-.118	-.122
12	.093	-.192	-1.247	-.111	-.052	-.089	-.122	-.108
13	.070	.175	.122	-.087	-.012	-.087	-.118	-.074
14	.028	.218	.028	-.079	-.024	-.080	-.112	-.056
15	-.046	.250	.209	.063	-.012	-.056	-.098	.603
16	-.161	.228	.201	.063	-.018	-.058	-.090	-.104
17	.099	.242	.171	.057	-.010	-.050	-.052	-.128
18	-.038	.218	.108	.057	-.012	-.048	-.066	-.052
19	.113	-.067	-.104	.036	-.010	-.030	-.056	.627
20	.026	-.103	-.175	.038	-.097	-.010	-.028	-.064
21	.123	-.169	-.012	-.079	-.111	-.147	.572	.617
22	.091	-.220	-.211	-.071	-.095	-.119	-.114	.559
23	.000	-.248	-.177	-.095	-.093	-.119	-.143	-.018
24	-.072	-.272	-.106	-.077	-.067	-.115	-.151	-.108
25	-.010	-.012	-.175	-.059	-.056	-.101	-.141	-.016
26	-.068	-.065	-.012	-.059	-.054	-.078	.544	-.060
				$\delta_e = 0°$				
1	.160	.075	.130	.016	-.018	-.049	-.086	-.075
2	.154	.051	.096	.018	-.018	-.067	-.080	-.081
3	.136	.047	.046	.010	-.018	-.061	-.086	-.075
4	.118	.033	.042	.012	.000	-.055	-.074	-.065
5	.102	.031	.002	.012	-.010	-.047	-.056	-.071
6	.106	.035	-.036	.016	.000	-.032	-.058	-.038
7	.054	.075	.122	.020	-.032	-.028	-.046	-.111
8	.022	.043	.048	-.006	-.026	-.089	-.038	-.135
9	.158	.033	.102	.010	-.028	-.087	-.094	-.123
10	.150	.033	.118	-.006	-.016	-.075	-.098	-.123
11	.122	.022	.040	.002	-.014	-.061	-.086	-.127
12	.110	.031	-.004	-.002	-.012	-.073	-.088	-.113
13	.092	.055	-.032	.006	-.042	-.055	-.084	-.077
14	.078	.049	-.018	-.004	-.048	-.055	-.078	-.067
15	.022	.041	.000	-.002	-.038	-.081	-.058	.615
16	-.012	.014	-.002	.000	-.038	-.067	-.050	-.101
17	.024	.031	.034	.004	-.022	-.067	-.078	-.133
18	.022	.022	.040	.002	-.026	-.061	-.090	-.048
19	.054	.053	.018	.006	-.018	-.053	-.106	.637
20	.050	.033	.008	.008	-.054	-.037	-.076	-.065
21	.090	.030	-.008	-.016	-.052	-.112	.578	.615
22	.086	.004	.024	-.008	-.052	-.097	-.096	.560
23	-.036	.018	-.020	-.010	-.058	-.099	-.116	-.012
24	-.048	.024	-.032	-.008	-.038	-.089	-.114	-.107
25	-.058	-.031	.036	-.004	-.028	-.075	-.086	-.020
26	-.064	-.045	-.014	-.002	-.030	-.057	.496	-.073
				$\delta_e = -10°$				
1	.133	.027	-.237	-.071	-.067	-.092	-.109	-.105
2	.137	.000	-.392	-.077	-.065	-.105	-.107	-.116
3	.115	-.045	-.598	-.098	-.055	-.098	-.109	-.122
4	.088	-.101	-.633	-.094	-.033	-.084	-.097	-.107
5	.066	-.123	-.559	-.088	-.037	-.074	-.085	-.116
6	.051	-.171	-.676	-.065	-.041	-.057	-.085	-.099
7	-.029	.119	.367	-.045	.020	-.053	-.075	-.081
8	-.092	.134	.148	.092	.010	-.070	-.073	-.097
9	.143	.154	.464	.116	.004	-.068	-.073	-.095
10	.143	.171	.507	.110	.020	-.068	-.073	-.095
11	.121	.150	.534	.110	.012	-.061	-.069	-.085
12	.115	.148	.596	.098	.012	-.061	-.071	-.062
13	.115	-.060	-.216	.086	-.084	-.053	-.071	-.112
14	.100	-.099	-.105	.069	-.088	-.051	-.061	-.120
15	.037	-.142	-.256	-.053	-.073	-.105	-.048	.576
16	-.025	-.187	-.305	-.059	-.069	-.107	-.032	-.074
17	-.047	-.208	-.214	-.069	-.047	-.096	-.093	-.089
18	.082	-.257	-.227	-.049	-.031	-.090	-.117	-.107
19	.016	.156	.184	-.033	-.031	-.076	-.123	.610
20	.098	.195	.229	-.020	-.006	-.070	-.115	-.027
21	.070	.218	-.016	.061	-.014	-.090	.556	.610
22	.113	.208	.256	.067	-.016	-.090	-.077	-.050
23	-.066	.208	.169	.053	-.024	-.092	-.093	-.054
24	-.033	.200	.113	.047	-.012	-.082	-.081	-.070
25	-.074	-.062	.245	.039	-.008	-.064	-.053	-.023
26	-.037	-.016	-.021	.033	-.008	-.045	.442	-.006

[redacted]

TABLE 23 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = {}^{0}\!\circ$; $\alpha = {}^{0}\!\circ$; $\delta_r = {}^{0}\!\circ$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -20^\circ$				
1	.071	-.040	-.718	-.178	-.125	-.119	-.142	-.125
2	.028	-.028	-.972	-.195	-.119	-.137	-.140	-.127
3	.010	-.101	-1.358	-.217	-.099	-.119	-.142	-.141
4	-.012	-.207	-1.423	-.229	-.067	-.109	-.134	-.141
5	-.012	-.328	-1.272	-.219	-.067	-.099	-.111	-.141
6	-.022	-.547	-1.668	-.195	-.067	-.083	-.113	-.141
7	-.143	.175	.378	-.170	.079	-.073	-.105	-.050
8	-.386	.223	.260	.185	.069	-.028	-.103	-.066
9	.150	.268	.521	.231	.044	-.028	-.038	-.062
10	.141	.302	.561	.237	.044	-.028	-.036	-.052
11	.115	.298	.640	.233	.032	-.028	-.036	-.040
12	.125	.274	.738	.215	.024	-.026	-.036	-.006
13	.131	-.201	-.451	.166	-.133	-.026	-.036	-.145
14	.143	-.153	-.266	.118	-.133	-.028	-.034	-.169
15	.097	-.243	-.584	-.142	-.117	-.121	-.020	.508
16	.014	-.372	-.692	-.142	-.105	-.117	-.012	-.030
17	-.105	-.511	-.577	-.150	-.077	-.115	-.121	-.024
18	.182	-.656	-.618	-.128	-.058	-.109	-.142	-.139
19	-.034	.274	.330	-.105	-.056	-.101	-.168	.554
20	.162	.350	.404	-.087	.026	-.089	-.168	.026
21	.022	.398	-.032	.120	.012	-.065	.494	.570
22	.149	.404	.487	.132	.010	-.063	-.045	.472
23	-.089	.400	.376	.128	-.006	-.063	-.059	-.072
24	.010	.366	.252	.118	.000	-.061	-.049	.006
25	-.087	-.068	.453	.085	.000	-.036	-.002	-.096
26	-.016	-.012	-.034	.059	-.002	-.018	.328	.016
				$\delta_e = -30^\circ$				
1	-.230	-.250	-.401	-.175	-.132	-.134	-.151	-.121
2	-.234	-.236	-.287	-.173	-.122	-.138	-.141	-.127
3	-.299	-.316	-.597	-.200	-.110	-.128	-.137	-.137
4	-.365	-.441	-.729	-.216	-.082	-.112	-.135	-.127
5	-.398	-.555	-1.427	-.222	-.082	-.099	-.118	-.143
6	-.426	-1.152	-2.405	-.212	-.162	-.085	-.110	-.141
7	-.443	.240	.407	-.193	.136	-.077	-.110	-.038
8	-.623	.311	.333	.240	.132	.002	-.106	-.050
9	.088	.365	.567	.318	.102	.000	-.018	-.050
10	.082	.408	.593	.330	.084	.000	-.020	-.046
11	.043	.412	.557	.336	.064	-.008	-.022	-.036
12	.045	.385	.543	.312	.050	-.006	-.022	-.004
13	.053	-.209	-.351	.246	-.138	-.006	-.022	-.135
14	.070	-.201	-.190	.179	-.134	-.004	-.022	-.153
15	.092	-.336	-.485	-.136	-.118	-.132	-.004	.523
16	.031	-.477	-.589	-.138	-.100	-.128	.010	-.024
17	-.469	-.846	-.641	-.145	-.082	-.124	-.131	-.026
18	.213	-1.031	-.796	-.138	-.062	-.114	-.163	-.133
19	-.352	.369	.425	-.106	-.094	-.099	-.175	.567
20	.172	.492	.511	-.094	.082	-.089	-.183	.012
21	-.301	.537	-.038	.181	.078	-.041	.514	.579
22	.152	.553	.589	.200	.066	-.041	-.026	.485
23	-.123	.555	.499	.185	.052	-.041	-.050	-.080
24	-.004	.500	.341	.167	.044	-.039	-.024	.014
25	-.115	-.074	.559	.122	.042	-.020	.026	-.105
26	-.023	-.002	-.040	.088	.032	.000	.331	.024
				$\delta_e = -40^\circ$				
1	-.338	-.311	-.345	-.188	-.138	-.130	-.132	-.145
2	-.292	-.295	-.253	-.188	-.126	-.130	-.134	-.136
3	-.298	-.359	-.353	-.208	-.104	-.126	-.134	-.147
4	-.366	-.427	-.451	-.216	-.078	-.103	-.124	-.145
5	-.410	-.399	-1.429	-.218	-.068	-.095	-.106	-.147
6	-.436	-.862	-2.112	-.218	-.146	-.077	-.102	-.138
7	-.548	.339	.449	-.218	.198	-.065	-.090	-.018
8	-.488	.461	.457	.367	.178	.053	-.088	-.049
9	.132	.529	.617	.435	.156	.040	.036	-.045
10	.146	.567	.631	.471	.124	.026	.014	-.039
11	.124	.567	.383	.475	.096	.028	.014	-.024
12	.122	.533	.184	.437	.078	.014	.008	.010
13	.124	-.277	-.411	.343	-.136	.024	.012	-.157
14	.132	-.265	-.204	.251	-.136	.012	.012	-.171
15	.160	-.331	-.457	-.152	-.116	-.121	.024	.527
16	.112	-.437	-.531	-.154	-.102	-.119	.034	-.029
17	-.438	-.603	-.619	-.156	-.070	-.119	-.118	-.020
18	.344	-1.711	-.780	-.138	-.056	-.109	-.146	-.153
19	-.374	.517	.433	-.118	-.084	-.099	-.162	.572
20	.298	.665	.535	-.110	.128	-.091	-.172	.020
21	-.320	.685	-.064	.253	.110	-.016	.507	.585
22	.270	.715	.617	.283	.104	-.020	-.014	.481
23	-.172	.741	.543	.271	.078	-.020	-.016	-.102
24	.054	.685	.403	.246	.072	-.020	-.004	.008
25	-.098	-.062	.599	.190	.052	.000	.052	-.110
26	.040	.028	-.050	.148	.034	.024	.317	.024

TABLE 24

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.165	.421	.598	.473	.268	.182	.174	.250
2	.195	.506	.658	.503	.268	.180	.187	.273
3	.176	.558	.701	.512	.233	.180	.202	.306
4	.148	.573	.701	.512	.180	.188	.215	.362
5	.133	.573	.592	.477	.099	.178	.222	.432
6	.152	.500	.427	.379	-.021	.173	.247	.531
7	.150	-.504	-.867	.260	-.338	.120	.249	-.544
8	.025	-.530	-.874	-.357	-.362	-.406	.250	-.631
9	-.288	-.723	-1.130	-.389	-.389	-.433	-.452	-.707
10	-.438	-.822	-1.246	-.413	-.622	-.440	-.480	-.820
11	-.521	-.916	-1.212	-.428	-1.759	-.423	-.497	-1.145
12	-.629	-.906	-.959	-.432	-1.188	-.391	-.521	-2.583
13	-.769	.640	.586	-.841	.194	-.818	-.536	.410
14	-.860	.715	.295	-1.219	.197	-2.097	-.536	.553
15	-1.178	.758	.697	.336	.199	.213	-.512	-3.078
16	-.867	.757	.695	.353	.188	.245	-2.697	-.850
17	.313	.734	.605	.348	.148	.269	.301	-1.310
18	-.894	.631	.436	.312	.091	.296	.357	.571
19	.313	-.448	-.583	.230	-.008	.328	.432	-2.377
20	-.754	-.678	-.756	.153	-.370	.361	.594	-1.148
21	.295	-.732	-.038	-.321	-.370	-.550	-3.667	-1.887
22	-.545	-1.032	-.906	-.335	-.397	-.577	-.667	-3.536
23	.127	-.921	-.891	-.370	-.398	-.605	-.826	.230
24	-1.710	-1.114	-.769	-.374	-.529	-.683	-1.011	-2.842
25	.205	.090	-.782	-.742	-2.065	-.769	-1.892	.284
26	-1.528	-2.228	-.038	-1.503	-1.323	-1.953	-3.262	-2.518
				$\delta_e = 30°$				
1	.167	.311	.534	.358	.219	.168	.161	.226
2	.201	.379	.594	.388	.217	.168	.175	.245
3	.165	.430	.642	.398	.190	.168	.182	.279
4	.139	.440	.651	.390	.135	.168	.194	.333
5	.139	.436	.640	.356	.055	.168	.205	.414
6	.164	.362	.592	.263	-.068	.160	.230	.507
7	.133	-.253	-1.381	.148	-.354	.098	.230	-.576
8	-.009	-.364	-.770	-.384	-.392	-.409	.237	-.657
9	-.045	-.615	-1.191	-.400	-.432	-.438	-.457	-.731
10	-.118	-.864	-2.268	-.436	-.705	-.445	-.480	-.859
11	-.229	-1.504	-5.291	-.466	-1.875	-.428	-.501	-1.183
12	-.344	-1.440	-3.300	-.508	-1.260	-.396	-.524	-2.655
13	-.438	.479	.530	-1.070	.167	-.862	-.537	.388
14	-.539	.557	.266	-1.625	.177	-2.111	-.529	.533
15	-1.224	.606	.638	.265	.183	.223	-.558	-3.026
16	-.977	.587	.636	.277	.163	.242	-2.575	-.879
17	.226	.572	.543	.278	.124	.264	.292	-1.337
18	-.639	.458	.323	.246	.055	.298	.353	.542
19	.241	-.485	-.602	.170	-.051	.328	.425	-2.399
20	-.459	-.547	-.728	.087	-.373	.357	.583	-1.171
21	.233	-.717	-.019	-.337	-.386	-.551	-3.696	-1.896
22	-.190	-1.142	-1.032	-.348	-.411	-.581	-.670	-3.454
23	.115	-1.645	-1.738	-.413	-.428	-.604	-.839	.226
24	-1.673	-2.198	-1.972	-.436	-.603	-.696	-1.011	-2.768
25	.188	.057	-.715	-.845	-2.144	-.855	-1.905	.271
26	-1.511	-2.275	-.017	-1.674	-1.378	-1.849	-3.095	-2.446
				$\delta_e = 20°$				
1	.146	.224	.445	.256	.156	.117	.113	.193
2	.158	.267	.529	.277	.156	.117	.130	.223
3	.129	.318	.639	.273	.137	.117	.140	.259
4	.114	.318	.722	.273	.106	.132	.159	.314
5	.114	.337	.741	.258	.035	.132	.176	.392
6	.131	.296	.715	.195	-.062	.132	.201	.500
7	.072	-.098	-.890	.101	-.301	.094	.205	-.549
8	-.034	-.147	-.405	-.277	-.343	-.394	.207	-.631
9	.053	-.260	-1.357	-.309	-.380	-.419	-.428	-.699
10	-.013	-.446	-2.162	-.349	-.574	-.434	-.455	-.813
11	-.061	-1.213	-4.373	-.378	-1.690	-.402	-.474	-1.009
12	-.108	-1.315	-5.205	-.435	-1.141	-.358	-.507	-2.714
13	-.160	.350	.375	-.903	.116	-.771	-.505	.356
14	-.247	.422	.192	-1.439	.119	-1.891	-.507	.509
15	-.952	.465	.485	.193	.121	.184	-.419	-2.795
16	-.675	.450	.473	.204	.121	.214	-2.491	-.833
17	.154	.458	.382	.212	.091	.229	.254	-1.265
18	-.335	.375	.196	.187	.044	.262	.306	.519
19	.167	-.256	-.344	.130	-.040	.291	.384	-2.246
20	-.148	-.256	-.468	.071	-.328	.331	.562	-1.125
21	.154	-.395	-.013	-.267	-.343	-.532	-3.836	-1.670
22	-.072	-.678	-.837	-.284	-.378	-.566	-.639	-3.328
23	.122	-1.618	-1.500	-.332	-.383	-.602	-.797	.223
24	-1.568	-1.670	-1.930	-.370	-.476	-.633	-.964	-2.684
25	.175	.053	-.589	-.712	-1.961	-.639	-1.629	.259
26	-1.517	-2.096	-.008	-1.502	-1.247	-2.218	-2.811	-2.331

TABLE 24 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 0°$				
1	.143	.046	.139	.037	.041	.039	.066	.160
2	.129	.046	.169	.052	.054	.047	.084	.181
3	.096	.042	.167	.050	.072	.054	.105	.228
4	.083	.029	.146	.052	.066	.091	.123	.287
5	.073	.042	.241	.052	.033	.091	.140	.363
6	.083	.042	.279	.058	-.017	.089	.169	.480
7	-.019	.054	.036	.048	-.153	.089	.187	-.470
8	-.069	.019	.030	-.064	-.169	-.297	.206	-.538
9	.143	-.029	-.063	-.069	-.229	-.322	-.362	-.604
10	.123	-.081	-.085	-.093	-.339	-.344	-.389	-.713
11	.092	-.440	-.731	-.110	-1.273	-.320	-.403	-.827
12	.066	-.444	-1.108	-.147	-.828	-.293	-.438	-2.493
13	.031	.058	-.036	-.436	.037	-.645	-.436	.327
14	-.012	.058	.000	-.780	.047	-1.520	-.442	.476
15	-.395	.058	.002	.029	.056	.128	-.337	-2.351
16	-.322	.035	.004	.056	.070	.151	-2.216	-.756
17	-.019	.071	-.072	.056	.058	.183	.222	-1.135
18	-.083	.071	-.156	.056	.037	.219	.280	.493
19	.023	.017	-.006	.056	-.012	.254	.366	-1.940
20	.004	-.008	-.028	.041	-.205	.303	.543	-1.018
21	.056	-.060	.011	-.104	-.231	-.462	-3.667	-1.380
22	.062	-.137	-.076	-.122	-.252	-.495	-.591	-2.795
23	.114	-.483	-.300	-.162	-.269	-.538	-.735	.218
24	-1.276	-.535	-.400	-.195	-.312	-.551	-.885	-2.232
25	.145	.050	-.036	-.431	-1.558	-.493	-1.432	.259
26	-1.403	-1.730	.002	-1.046	-.955	-2.027	-2.477	-1.846
				$\delta_e = -20°$				
1	.083	-.093	-.961	-.195	-.066	.000	.019	.120
2	.065	-.097	-1.144	-.193	-.046	.004	.037	.144
3	.054	-.141	-1.575	-.193	-.008	.027	.054	.187
4	.037	-.205	-1.472	-.193	.017	.075	.081	.254
5	.025	-.227	-1.204	-.163	.006	.079	.110	.335
6	.012	-.260	-1.210	-.090	-.010	.079	.137	.455
7	-.071	.151	.346	-.044	-.021	.081	.164	-.427
8	-.198	.186	.206	.129	-.062	-.209	.191	-.502
9	.127	.225	.400	.161	-.103	-.238	-.278	-.561
10	.123	.291	.526	.161	-.201	-.251	-.307	-.673
11	.110	.136	.639	.153	-.787	-.230	-.330	-.758
12	.115	-.132	.522	.098	-.528	-.205	-.353	-2.250
13	.129	-.295	-.588	-.120	-.046	-.576	-.363	.307
14	.154	-.271	-.315	-.311	-.033	-1.141	-.371	.467
15	.079	-.333	-.623	-.114	-.004	.110	-.276	-2.016
16	-.238	-.378	-.687	-.098	.015	.130	-1.751	-.707
17	-.104	-.362	-.501	-.080	.029	.162	.199	-1.047
18	.190	-.339	-.402	-.052	.029	.209	.255	.470
19	-.027	.238	.268	-.020	.004	.244	.330	-1.683
20	.142	.279	.305	.004	-.099	.302	.515	-.959
21	.021	.329	-.014	.044	-.124	-.377	-3.021	-1.169
22	.121	.374	.419	.042	-.147	-.410	-.514	-2.429
23	.123	.188	.103	.012	-.168	-.456	-.641	.213
24	-1.027	-.056	-.066	-.020	-.232	-.476	-.790	-2.087
25	.125	.047	.344	-.197	-1.062	-.377	-1.245	.260
26	-1.006	-1.238	-.021	-.570	-.677	-1.824	-1.931	-1.650
				$\delta_e = -30°$				
1	-.106	-.237	-.994	-.206	-.079	-.017	.025	.104
2	-.162	-.345	-.728	-.202	-.058	-.008	.043	.139
3	-.193	-.425	-1.256	-.221	-.016	.015	.062	.182
4	-.201	-.506	-1.595	-.227	.010	.054	.090	.240
5	-.170	-.414	-1.669	-.202	.012	.066	.105	.323
6	-.124	-.508	-2.002	-.133	.002	.075	.144	.451
7	-.127	.220	.347	-.073	.033	.081	.170	-.371
8	-.297	.288	.293	.231	.006	-.158	.199	-.439
9	.069	.355	.441	.273	-.047	-.189	-.253	-.501
10	.089	.437	.536	.273	-.171	-.212	-.277	-.600
11	.089	.322	.536	.271	-.622	-.200	-.294	-.685
12	.116	.035	.513	.213	-.399	-.183	-.326	-2.093
13	.151	-.408	-.609	-.006	-.054	-.470	-.326	.273
14	.201	-.459	-.328	-.173	-.037	-1.044	-.337	.429
15	.214	-.551	-.736	-.127	-.014	.089	-.485	-1.809
16	-.069	-.684	-.875	-.112	.017	.112	-1.528	-.658
17	-.286	-.684	-.748	-.096	.031	.146	.203	-.967
18	.280	-.684	-.682	-.073	.031	.183	.257	.443
19	-.301	.353	.353	-.023	.014	.231	.341	-1.518
20	.207	.400	.376	.006	-.052	.276	.522	-.892
21	-.239	.478	-.025	.119	-.072	-.343	-2.969	-.985
22	.143	.565	.526	.129	-.099	-.376	-.497	-2.215
23	.129	.400	.301	.100	-.118	-.416	-.624	.199
24	-.971	.118	.060	.054	-.234	-.439	-.768	-1.956
25	.118	.059	.435	-.121	-.878	-.397	-1.345	.240
26	-.921	-1.094	-.021	-.408	-.560	-1.474	-1.895	-1.509

TABLE 24 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -40°$				
1	-.200	-.271	-.427	-.163	-.074	-.018	.021	.121
2	-.262	-.302	-.287	-.155	-.053	-.002	.045	.143
3	-.320	-.381	-.431	-.172	-.004	.018	.056	.187
4	-.386	-.482	-.545	-.172	.020	.058	.080	.249
5	-.435	-.522	-1.470	-.155	.020	.070	.111	.328
6	-.466	-.796	-1.470	-.101	.010	.088	.136	.457
7	-.476	.289	.360	-.050	.080	.088	.169	-.364
8	-.425	.377	.372	.322	.063	-.125	.198	-.437
9	.060	.466	.480	.357	-.010	-.163	-.228	-.493
10	.066	.557	.561	.349	-.141	-.179	-.255	-.592
11	.050	.458	.203	.347	-.540	-.181	-.270	-.671
12	.072	.166	.112	.302	-.374	-.165	-.307	-2.048
13	.093	-.249	-.470	.081	-.055	-.484	-.307	.299
14	.146	-.277	-.230	-.078	-.035	-.940	-.325	.453
15	.264	-.377	-.512	-.105	-.012	.092	-.247	-1.852
16	.016	-.492	-.593	-.089	.016	.125	-1.599	-.647
17	-.493	-.628	-.624	-.070	.031	.153	.191	-.981
18	.336	-1.030	-.583	-.048	.031	.193	.249	.464
19	-.388	.385	.360	-.008	.022	.233	.329	-1.566
20	.245	.435	.370	.019	-.016	.285	.519	-.894
21	-.295	.581	-.035	.192	-.037	-.317	-2.844	-1.073
22	.196	.731	.486	.207	-.061	-.359	-.465	-2.225
23	.138	.583	.333	.182	-.098	-.402	-.591	.204
24	-.903	.283	.136	.116	-.188	-.420	-.743	-1.871
25	.126	.049	.423	-.050	-.816	-.375	-1.171	.258
26	-.781	-.970	-.033	-.306	-.532	-1.520	-1.794	-1.434

TABLE 25

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 20°$; $\delta_f = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.098	.333	.583	.413	.284	.255	.283	.398
2	.129	.402	.652	.442	.284	.269	.301	.452
3	.124	.474	.703	.446	.280	.285	.331	.502
4	.116	.516	.705	.456	.211	.285	.356	.561
5	.116	.522	.599	.444	.095	.273	.366	.613
6	.149	.441	.448	.353	-.060	.251	.384	.613
7	.151	-.522	-.949	.210	-.372	.138	.376	-1.435
8	.038	-.535	-.826	-.397	-.491	-.579	.335	-2.013
9	-.341	-.982	-1.669	-.403	-1.421	-.978	-.919	-2.113
10	-.408	-.996	-1.399	-.464	-1.374	-1.346	-1.281	-1.998
11	-.442	-1.006	-1.051	-.607	-1.171	-1.656	-1.600	-1.854
12	-.572	-.978	-.959	-1.117	-1.131	-1.573	-1.760	-1.762
13	-.723	.530	.571	-1.169	.249	-1.423	-1.766	.657
14	-.805	.602	.299	-1.002	.262	-1.350	-1.679	.761
15	-1.052	.683	.693	.312	.274	.354	-1.574	-2.613
16	-.849	.681	.693	.333	.262	.397	-1.503	-2.513
17	.281	.669	.613	.339	.209	.435	.501	-2.527
18	-.871	.545	.431	.327	.095	.462	.584	.830
19	.257	-.520	-.573	.238	-.058	.474	.659	-3.619
20	-.731	-.697	-.810	.139	-.421	.462	.729	-2.845
21	.217	-1.124	.002	-.339	-.457	-1.565	-1.893	-3.943
22	-.470	-1.126	-1.065	-.343	-.982	-1.919	-1.941	-2.019
23	.096	-1.043	-.967	-.633	-1.592	-1.990	-2.277	.282
24	-1.440	-.998	-.861	-1.264	-1.425	-1.879	-2.131	-1.659
25	.293	.100	-.863	-1.298	-1.280	-1.735	-2.030	.341
26	-1.490	-1.374	.006	-1.093	-1.252	-1.656	-1.899	-1.531
				$\delta_e = 30°$				
1	.119	.255	.479	.337	.250	.228	.274	.396
2	.151	.309	.549	.363	.250	.250	.307	.444
3	.114	.365	.604	.365	.250	.267	.333	.505
4	.076	.396	.640	.367	.189	.267	.354	.560
5	.063	.420	.670	.357	.074	.267	.362	.606
6	.078	.347	.612	.283	-.086	.234	.389	.606
7	.065	-.315	-1.147	.160	-.396	.108	.380	-1.147
8	-.039	-.351	-.584	-.383	-.381	-.549	.325	-1.871
9	-.184	-.598	-2.895	-.419	-1.371	-.625	-.689	-2.697
10	-.174	-.956	-3.020	-.453	-1.982	-1.124	-.787	-2.859
11	-.274	-1.159	-2.058	-.517	-1.377	-2.188	-1.386	-2.535
12	-.423	-1.118	-1.581	-1.136	-1.270	-2.072	-2.151	-2.366
13	-.532	.408	.461	-1.457	.227	-1.725	-2.329	.677
14	-.679	.486	.243	-1.156	.232	-1.611	-2.110	.776
15	-1.084	.544	.594	.275	.240	.347	-1.840	-4.002
16	-.822	.554	.614	.295	.240	.393	-1.730	-2.614
17	.184	.554	.523	.305	.188	.435	.515	-3.846
18	-.763	.452	.354	.281	.078	.465	.597	.838
19	.170	-.548	-.608	.206	-.088	.479	.661	-5.170
20	-.468	-.550	-.871	.104	-.434	.467	.716	-3.869
21	.174	-.833	.004	-.331	-.408	-1.226	-2.395	-6.059
22	-.243	-1.271	-1.423	-.331	-.480	-2.054	-1.665	-2.984
23	.090	-1.345	-1.352	-.441	-1.742	-2.581	-2.930	.267
24	-1.566	-1.279	-1.189	-1.251	-2.035	-2.453	-2.888	-2.160
25	.280	.086	-1.036	-1.657	-1.477	-2.164	-2.601	.329
26	-1.659	-1.526	.002	-1.224	-1.451	-2.020	-2.344	-1.895
				$\delta_e = 20°$				
1	.131	.202	.420	.250	.195	.211	.236	.380
2	.114	.230	.492	.272	.217	.229	.268	.434
3	.074	.264	.646	.272	.217	.249	.297	.492
4	.042	.288	.762	.274	.165	.249	.319	.556
5	.026	.304	.760	.268	.063	.249	.333	.606
6	.040	.262	.701	.225	-.087	.223	.354	.606
7	.006	-.194	-.850	.121	-.346	.109	.354	-1.143
8	-.106	-.230	-.383	-.308	-.335	-.535	.313	-2.028
9	-.002	-.440	-2.014	-.342	-1.465	-.487	-.709	-2.612
10	-.102	-.962	-2.209	-.378	-1.756	-.759	-.764	-2.498
11	-.157	-1.131	-1.900	-.435	-1.289	-2.191	-1.199	-2.277
12	-.251	-1.036	-1.725	-1.099	-1.215	-2.282	-2.091	-2.135
13	-.369	.323	.338	-1.437	.201	-1.797	-2.447	.665
14	-.554	.383	.182	-1.083	.209	-1.634	-2.246	.767
15	-1.000	.425	.438	.217	.232	.358	-1.937	-3.392
16	-.763	.427	.438	.243	.220	.394	-1.807	-2.691
17	.080	.444	.402	.249	.165	.416	.494	-3.331
18	-.729	.377	.266	.233	.067	.471	.567	.843
19	.104	-.361	-.391	.179	-.083	.481	.646	-4.486
20	-.285	-.361	-.555	.085	-.400	.483	.713	-3.781
21	.118	-.740	.031	-.292	-.364	-.984	-2.537	-5.444
22	-.137	-1.272	-1.162	-.294	-.581	-1.610	-1.557	-2.558
23	.082	-1.310	-1.277	-.388	-1.778	-2.573	-2.860	.269
24	-1.624	-1.169	-1.061	-1.207	-1.756	-2.640	-3.118	-1.968
25	.269	.079	-.738	-1.614	-1.406	-2.252	-2.760	.317
26	-1.731	-1.563	.031	-1.175	-1.380	-2.056	-2.502	-1.769

[redacted]

TABLE 25 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 0°$				
1	.082	.038	.161	.067	.120	.159	.199	.340
2	.064	.018	.218	.067	.128	.190	.224	.397
3	.020	-.014	.204	.067	.146	.208	.250	.451
4	-.050	-.050	.085	.067	.128	.229	.281	.510
5	-.111	-.016	.252	.067	.054	.229	.301	.572
6	-.141	-.014	.250	.067	-.058	.220	.315	.605
7	-.177	.002	-.052	.035	-.238	.139	.317	-1.354
8	-.225	-.052	-.071	-.104	-.441	-.586	.299	-1.681
9	.072	-.346	-.397	-.154	-1.138	-1.031	-.805	-1.700
10	.012	-.634	-.819	-.254	-1.080	-1.210	-1.098	-1.619
11	-.040	-.584	-.800	-.455	-.938	-1.314	-1.380	-1.506
12	-.163	-.535	-.700	-.852	-.902	-1.257	-1.559	-1.418
13	-.360	.048	-.034	-.813	.120	-1.159	-1.581	.617
14	-.541	.050	.004	-.691	.140	-1.116	-1.498	.732
15	-.614	.032	-.063	.093	.166	.310	-1.411	-2.331
16	-.477	.002	-.103	.108	.166	.359	-1.341	-2.078
17	-.169	.050	-.133	.114	.142	.392	.449	-2.054
18	-.624	.038	-.192	.114	.076	.433	.528	.804
19	-.082	-.022	-.036	.100	-.046	.457	.610	-2.821
20	-.249	-.091	-.091	.047	-.339	.457	.705	-2.226
21	.008	-.374	.024	-.183	-.421	-1.457	-1.758	-3.278
22	-.006	-.694	-.712	-.222	-.850	-1.600	-1.665	-1.640
23	.097	-.620	-.649	-.559	-1.259	-1.594	-2.033	.282
24	-1.209	-.579	-.589	-.980	-1.152	-1.504	-1.969	-1.356
25	.241	.087	-.333	-.933	-1.036	-1.424	-1.856	.329
26	-1.260	-1.066	.012	-.807	-1.018	-1.357	-2.033	-1.270
				$\delta_e = -20°$				
1	.006	-.101	-.750	-.111	.017	.097	.160	.283
2	-.008	-.144	-1.094	-.119	.043	.120	.186	.333
3	-.092	-.274	-1.750	-.138	.066	.143	.213	.388
4	-.185	-.350	-1.617	-.146	.066	.172	.244	.454
5	-.244	-.352	-1.281	-.131	.029	.172	.270	.517
6	-.260	-.352	-1.258	-.075	-.029	.172	.299	.589
7	-.350	.097	-.054	-.048	-.469	.128	.311	-.918
8	-.377	.021	-.054	-.194	-.599	-.667	.307	-.971
9	.106	-.228	-.321	-.276	-.641	-.727	-.752	-.957
10	-.006	-.375	-.423	-.347	-.628	-.731	-.832	-.914
11	-.081	-.395	-.425	-.420	-.609	-.718	-.875	-.844
12	-.190	-.383	-.394	-.497	-.607	-.718	-.877	-.795
13	-.277	-.226	-.479	-.478	.039	-.704	-.857	.565
14	-.350	-.278	-.256	-.440	.058	-.673	-.828	.698
15	-.440	-.403	-.662	-.021	.093	.251	-.799	-1.308
16	-.410	-.481	-.740	-.017	.110	.288	-.771	-1.135
17	-.346	-.444	-.617	.006	.112	.329	.422	-1.158
18	-.362	-.428	-.537	.023	.072	.364	.500	.764
19	-.240	.049	-.102	.036	-.004	.406	.580	-1.419
20	-.215	-.031	-.200	.035	-.550	.402	.693	-1.173
21	-.083	-.267	.017	-.313	-.618	-.834	-.965	-1.780
22	-.013	-.403	-.438	-.378	-.676	-.832	-1.064	-1.296
23	.167	-.405	-.406	-.511	-.690	-.812	-1.119	.287
24	-.692	-.377	-.363	-.564	-.676	-.772	-1.102	-.760
25	.227	.089	-.365	-.555	-.659	-.750	-1.100	.355
26	-.710	-.732	.006	-.522	-.657	-.720	-1.078	-.743
				$\delta_e = -30°$				
1	-.071	-.178	-1.085	-.174	-.014	.053	.138	.278
2	-.054	-.201	-1.664	-.188	.006	.103	.165	.331
3	-.088	-.328	-2.757	-.219	.024	.127	.200	.375
4	-.169	-.471	-2.551	-.233	.045	.152	.220	.440
5	-.235	-.537	-1.784	-.221	.018	.154	.251	.508
6	-.298	-.568	-1.872	-.141	-.030	.164	.276	.588
7	-.435	.029	-.047	-.110	-.488	.131	.286	-.665
8	-.483	-.085	-.107	-.286	-.553	-.565	.288	-.673
9	.087	-.255	-.264	-.342	-.553	-.604	-.625	-.658
10	.015	-.388	-.350	-.393	-.531	-.608	-.652	-.623
11	-.069	-.454	-.433	-.432	-.531	-.581	-.656	-.580
12	-.165	-.475	-.439	-.460	-.531	-.587	-.656	-.566
13	-.254	-.297	-.629	-.440	.012	-.577	-.640	.568
14	-.327	-.342	-.388	-.411	.026	-.565	-.619	.679
15	-.456	-.566	-.975	-.072	.063	.230	-.597	-.895
16	-.485	-.695	-1.120	-.055	.087	.261	-.578	-.782
17	-.392	-.815	-.895	-.049	.089	.294	.387	-.798
18	-.354	-.807	-.784	-.031	.057	.335	.463	.745
19	-.231	-.035	-.122	-.004	.010	.384	.553	-.984
20	-.200	-.143	-.173	-.004	-.535	.411	.656	-.786
21	-.123	-.311	.000	-.397	-.583	-.665	-.720	-1.228
22	-.012	-.403	-.371	-.452	-.583	-.655	-.788	-.973
23	.185	-.432	-.371	-.497	-.583	-.634	-.823	.276
24	-.554	-.434	-.351	-.505	-.583	-.610	-.809	-.549
25	.235	.089	-.299	-.468	-.575	-.585	-.809	.354
26	-.577	-.554	.006	-.448	-.561	-.563	-.755	-.545

[redacted]

TABLE 25 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 0°$; $\alpha = 20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -40°$				
1	-.157	-.269	-.990	-.126	.015	.091	.147	.274
2	-.179	-.407	-.810	-.128	.035	.119	.178	.330
3	-.292	-.532	-.619	-.135	.075	.139	.202	.380
4	-.407	-.544	-.569	-.132	.074	.173	.227	.446
5	-.458	-.600	-.658	-.104	.043	.173	.253	.504
6	-.494	-.651	-.660	-.046	-.021	.171	.276	.568
7	-.565	.076	-.041	-.027	-.402	.141	.290	-.676
8	-.562	-.039	-.066	-.255	-.526	-.602	.288	-.685
9	.103	-.277	-.299	-.327	-.567	-.666	-.678	-.678
10	.002	-.405	-.384	-.389	-.555	-.668	-.725	-.633
11	-.093	-.441	-.427	-.439	-.536	-.648	-.755	-.591
12	-.208	-.450	-.392	-.462	-.536	-.650	-.743	-.571
13	-.306	-.351	-.616	-.439	.037	-.642	-.712	.535
14	-.373	-.604	-.291	-.391	.062	-.622	-.704	.685
15	-.482	-.505	-.598	-.029	.085	.245	-.686	-.913
16	-.504	-.511	-.645	-.006	.114	.292	-.657	-.784
17	-.556	-.641	-.489	.014	.114	.330	.386	-.790
18	-.393	-.645	-.414	.027	.079	.368	.473	.724
19	-.494	-.029	-.120	.027	.017	.408	.567	-1.002
20	-.236	-.123	-.210	.027	-.501	.431	.684	-.784
21	-.278	-.308	.012	-.369	-.547	-.750	-.824	-1.249
22	-.024	-.413	-.404	-.443	-.592	-.755	-.918	-.942
23	.185	-.427	-.386	-.491	-.607	-.728	-.947	.272
24	-.577	-.417	-.371	-.489	-.609	-.694	-.927	-.562
25	.246	.101	-.334	-.468	-.596	-.664	-.924	.342
26	-.601	-.598	-.002	-.445	-.590	-.642	-.876	-.537

TABLE 26

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.428	.463	.414	.223	.109	-.164	-.512	-1.025
2	.323	.582	.503	.243	-.231	-.681	-.843	-1.391
3	.191	.335	.161	.112	-.760	-.902	-1.098	-1.420
4	.119	-.012	-.274	-.035	-.682	-1.008	-1.220	-1.330
5	.060	-.315	-.381	-.356	-.481	-.914	-1.181	-1.216
6	-.062	-.414	-.373	-.386	-.415	-.751	-1.106	-1.128
7	-.442	-.467	-1.194	-.233	.101	-.677	-.969	.489
8	-.461	-.568	-.627	-.129	.143	.235	-.900	.517
9	-.226	-.481	-.598	-.049	.143	.275	.317	.546
10	-.389	-.521	-.825	-.049	.128	.275	.341	.559
11	-.424	-.602	-1.670	-.065	.072	.258	.368	.567
12	-.467	-.683	-1.363	-.047	.004	.231	.368	.523
13	-.477	.426	.283	.002	.012	.207	.362	-1.649
14	-.510	.612	.087	.018	-.234	.111	.362	-1.605
15	-.626	.323	.083	.155	-.641	-1.103	.343	-1.521
16	-.553	-.160	-.274	.063	-.911	-1.300	.280	.754
17	-.043	-.335	-.404	-.249	-.731	-1.302	-1.467	.782
18	-.525	-.406	-.394	-.591	-.568	-1.214	-1.620	-1.718
19	.228	-.574	-.524	-.532	-.533	-1.098	-1.533	-1.594
20	-.516	-.552	-.511	-.344	.171	-1.008	-1.419	.906
21	.444	-.434	-.093	.018	.205	.432	-1.350	-1.941
22	-.475	-.626	-.518	.094	.205	.434	.610	-1.435
23	-.749	-.703	-.563	.092	.203	.442	.656	-.664
24	.064	-1.119	-.402	.092	.157	.442	.673	.368
25	-.815	-.624	-.464	.092	.095	.442	.652	-.897
26	.255	.099	-.105	.067	-.010	.398	-1.234	.267
				$\delta_e = 30°$				
1	.426	.448	.346	.203	.092	-.182	-.480	-1.023
2	.372	.493	.407	.181	-.220	-.698	-.799	-1.452
3	.281	.265	.102	.066	-.764	-.945	-1.095	-1.519
4	.215	-.043	-.295	-.069	-.690	-1.059	-1.267	-1.417
5	.140	-.330	-.386	-.373	-.497	-.960	-1.228	-1.292
6	.017	-.422	-.355	-.429	-.436	-.806	-1.155	-1.194
7	-.424	-.246	-1.832	-.272	.083	-.706	-1.002	.476
8	-.469	-.193	-.562	-.185	.136	.229	-.923	.513
9	.087	-.281	-2.568	-.112	.136	.279	.333	.532
10	.134	-.399	-2.820	-.141	.116	.279	.350	.550
11	.101	-.485	-3.311	-.153	.073	.251	.362	.568
12	.056	-.591	-3.210	-.139	-.004	.239	.364	.509
13	-.004	.434	.307	-.058	.002	.204	.364	-1.791
14	-.095	.523	.093	-.033	-.234	.105	.360	-1.744
15	-.366	.251	.100	.129	-.639	-1.138	.337	-1.650
16	-.504	-.177	-.230	.015	-.929	-1.350	.271	.740
17	-.033	-.346	-.375	-.247	-.760	-1.368	-1.485	.775
18	-.221	-.411	-.342	-.597	-.583	-1.275	-1.737	-1.885
19	.244	-.462	-.579	-.575	-.552	-1.146	-1.642	-1.744
20	-.066	-.462	-.714	-.386	.155	-1.055	-1.499	.900
21	.405	-.576	-.077	-.012	.193	.439	-1.414	-2.086
22	.027	-.697	-.909	.048	.200	.455	.596	-1.534
23	-.777	-.735	-.817	.048	.189	.453	.646	-.703
24	.070	-.733	-.581	.054	.153	.453	.677	.372
25	-.839	-.650	-.819	.066	.079	.441	.648	-.955
26	.246	.083	-.071	.037	-.020	.395	-1.296	.249
				$\delta_e = 20°$				
1	.377	.411	.376	.165	.050	-.184	-.407	-.779
2	.309	.360	.389	.101	-.219	-.541	-.618	-1.600
3	.226	.130	.078	-.012	-.884	-.943	-1.049	-1.885
4	.138	-.101	-.270	-.109	-.922	-1.371	-1.426	-1.750
5	.076	-.353	-.346	-.431	-.622	-1.233	-1.441	-1.539
6	-.038	-.384	-.299	-.551	-.532	-.961	-1.327	-1.398
7	-.411	-.114	-1.100	-.364	.125	-.831	-1.118	.494
8	-.383	-.122	-.311	-.093	.161	.237	-.992	.525
9	.116	-.202	-1.507	-.020	.161	.286	.344	.547
10	.130	-.264	-1.663	-.032	.112	.284	.378	.563
11	.080	-.306	-1.939	-.044	.060	.259	.386	.580
12	.022	-.306	-1.939	-.046	-.022	.233	.386	.506
13	-.042	.393	.282	.000	-.038	.208	.384	-2.258
14	-.112	.393	.072	.000	-.243	.088	.375	-2.303
15	-.265	.145	.068	.093	-.560	-.929	.354	-2.105
16	-.355	-.190	-.198	-.038	-1.157	-1.575	.289	.756
17	-.096	-.355	-.376	-.249	-.982	-1.739	-1.323	.789
18	-.196	-.357	-.307	-.658	-.719	-1.610	-2.091	-2.637
19	.124	-.277	-.317	-.755	-.679	-1.390	-1.989	-2.320
20	-.080	-.289	-.403	-.511	.191	-1.257	-1.732	.908
21	.295	-.368	-.055	.052	.223	.445	-1.595	-2.994
22	.030	-.430	-.526	.107	.225	.455	.616	-1.807
23	-.886	-.421	-.464	.109	.205	.455	.665	-.832
24	.042	-.397	-.325	.107	.147	.455	.686	.361
25	-.984	-.752	-.464	.089	.078	.445	.648	-1.088
26	.244	.081	-.061	.046	-.054	.402	-1.441	

TABLE 26 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 0°$				
1	.162	.112	.170	.004	-.085	-.297	-.475	-.681
2	.162	.032	-.067	-.133	-.372	-.409	-.497	-.855
3	.065	-.192	-.358	-.277	-.775	-.470	-.547	-2.303
4	-.032	-.355	-.555	-.349	-1.512	-1.803	-1.152	-3.218
5	-.113	-.447	-.682	-.558	-1.132	-2.268	-2.283	-2.580
6	-.200	-.379	-.668	-.800	-.794	-1.819	-2.602	-2.236
7	-.400	.076	.225	-.657	.223	-1.189	-1.927	.545
8	-.291	.146	.184	.149	.267	.299	-1.527	.586
9	.143	.106	.328	.212	.227	.341	.388	.594
10	.198	.082	.291	.212	.144	.341	.418	.596
11	.125	.062	.184	.202	.059	.297	.432	.596
12	.079	.032	.130	.172	-.047	.272	.422	.491
13	.030	.090	.006	.129	-.158	.217	.416	-1.485
14	-.024	-.026	-.089	.073	-.391	.073	.400	-4.535
15	-.083	-.269	-.275	-.042	-.405	-.598	.356	-3.640
16	-.150	-.481	-.415	-.238	-1.065	-.860	.259	.806
17	-.299	-.509	-.530	-.390	-1.881	-2.358	-.984	.806
18	-.010	-.427	-.423	-.661	-1.182	-2.854	-1.962	-2.855
19	-.131	.080	.051	-1.141	-.933	-2.287	-3.770	-4.713
20	.057	.176	.099	-.901	.263	-1.866	-2.950	.947
21	.075	.148	-.075	.192	.296	.502	-2.562	-7.691
22	.135	.100	.059	.261	.296	.500	.642	-2.974
23	-1.347	.092	-.034	.253	.247	.500	.699	-1.335
24	-.042	.048	-.063	.216	.164	.500	.705	.319
25	-1.560	-1.158	.103	.150	.053	.474	.618	-1.626
26	.246	.056	-.079	.073	-.093	.400	-2.250	.216
				$\delta_e = -20°$				
1	-.062	-.230	-.823	-.167	-.210	-.400	-.578	-.741
2	.030	-.257	-1.278	-.410	-.554	-.494	-.596	-.822
3	.000	-.497	-1.795	-.616	-.928	-.514	-.600	-1.484
4	-.111	-.731	-1.805	-.713	-1.934	-1.490	-.729	-4.306
5	-.227	-.865	-1.290	-.946	-1.570	-2.792	-2.028	-3.787
6	-.354	-.838	-1.205	-1.261	-1.076	-2.922	-3.675	-2.968
7	-.861	.234	.547	-1.082	.336	-1.592	-3.166	.587
8	-.590	.420	.471	.335	.390	.365	-2.089	.632
9	.163	.432	.710	.436	.296	.400	.448	.632
10	.288	.404	.740	.442	.170	.386	.483	.630
11	.278	.337	.706	.428	.032	.333	.487	.603
12	.229	.242	.620	.355	-.126	.288	.483	.429
13	.171	-.339	-.416	.243	-.288	.220	.465	-1.443
14	.135	-.487	-.439	.084	-.546	.027	.426	-5.125
15	.080	-.760	-.990	-.171	-.544	-.635	.364	-4.905
16	-.064	-.990	-1.229	-.448	-1.036	-.673	.232	.826
17	-.513	-.992	-1.080	-.639	-2.522	-1.694	-1.014	.794
18	.249	-.968	-.922	-.898	-1.718	-3.863	-1.434	-2.794
19	-.268	.354	.461	-1.520	-1.250	-3.510	-4.982	-8.182
20	.298	.533	.594	-1.291	.338	-2.402	-4.349	.955
21	-.082	.558	-.159	.321	.392	.537	-3.501	-8.745
22	.332	.507	.565	.402	.368	.537	.697	-4.146
23	-1.769	.422	.372	.392	.302	.537	.758	-1.769
24	-.123	.299	.177	.315	.176	.529	.735	.255
25	-2.372	-1.727	.638	.189	.028	.494	.566	-2.089
26	.235	.026	-.165	.042	-.176	.398	-3.012	.160
				$\delta_e = -30°$				
1	-.238	-.325	-1.196	-.194	-.230	-.441	-.640	-.791
2	-.192	-.327	-1.926	-.480	-.587	-.543	-.670	-.897
3	-.173	-.556	-2.701	-.700	-.949	-.573	-.670	-1.883
4	-.232	-.861	-2.244	-.810	-1.980	-1.736	-.863	-4.346
5	-.329	-1.267	-1.509	-1.049	-1.640	-2.986	-2.372	-3.720
6	-.466	-1.231	-1.421	-1.345	-1.142	-2.955	-3.748	-2.980
7	-1.192	.305	.571	-1.184	.372	-1.659	-3.101	.596
8	-.812	.520	.563	.410	.427	.388	-2.129	.648
9	.123	.568	.776	.506	.331	.437	.439	.648
10	.290	.542	.709	.531	.195	.413	.473	.646
11	.290	.454	.563	.516	.043	.354	.485	.614
12	.282	.325	.453	.441	-.130	.301	.483	.429
13	.236	-.378	-.549	.298	-.313	.238	.459	-1.567
14	.198	-.554	-.585	.114	-.557	.030	.421	-5.606
15	.183	-.942	-1.357	-.200	-.559	-.685	.352	-4.863
16	.008	-1.369	-1.625	-.469	-1.053	-.730	.225	.855
17	-.603	-1.382	-1.238	-.694	-2.559	-2.018	-1.103	.803
18	.345	-1.247	-1.008	-.925	-1.791	-3.998	-1.624	-3.030
19	-.331	.450	.569	-1.569	-1.280	-3.549	-5.143	-7.610
20	.389	.663	.719	-1.345	.364	-2.514	-4.318	.986
21	-.226	.713	-.186	.380	.417	.565	-3.505	-9.121
22	.369	.647	.677	.451	.407	.563	.678	-4.105
23	-1.806	.536	.465	.441	.329	.557	.744	-1.807
24	-.131	.378	.222	.363	.197	.537	.736	.243
25	-2.345	-1.685	.770	.229	.041	.496	.553	-2.125
26	.248	.036	-.182	.071	-.167	.388	-3.040	.167

TABLE 26 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -40°$				
1	-.320	-.414	-1.280	-.242	-.251	-.480	-.628	-.803
2	-.334	-.412	-2.190	-.543	-.597	-.575	-.649	-.979
3	-.336	-.648	-2.482	-.766	-1.043	-.664	-.686	-2.592
4	-.370	-1.223	-1.657	-.853	-1.916	-2.273	-1.290	-3.779
5	-.459	-1.481	-1.296	-1.079	-1.531	-2.796	-2.657	-3.080
6	-.567	-1.195	-1.227	-1.341	-1.117	-2.292	-3.181	-2.645
7	-1.485	.346	.669	-1.164	.412	-1.547	-2.442	.604
8	-1.107	.610	.647	.495	.463	.407	-1.904	.645
9	.121	.692	.859	.582	.370	.458	.470	.646
10	.338	.658	.757	.614	.228	.439	.515	.643
11	.352	.533	.359	.596	.070	.368	.522	.609
12	.352	.378	.167	.517	-.101	.320	.501	.453
13	.328	-.447	-.608	.356	-.325	.241	.487	-1.715
14	.310	-.644	-.647	.147	-.562	.030	.450	-5.168
15	.270	-1.354	-1.475	-.226	-.578	-.777	.390	-4.217
16	.068	-2.173	-1.549	-.517	-1.286	-1.119	.255	.848
17	-.696	-1.340	-.996	-.721	-2.325	-2.893	-1.127	.813
18	.491	-1.227	-.812	-1.034	-1.549	-3.439	-2.257	-3.549
19	-.481	.537	.663	-1.590	-1.218	-2.749	-4.464	-5.555
20	.507	.755	.802	-1.325	.405	-2.261	-3.536	.980
21	-.390	.829	-.182	.430	.451	.577	-2.998	-8.361
22	.463	.763	.761	.501	.428	.579	.710	-3.482
23	-1.710	.622	.524	.503	.360	.571	.760	-1.623
24	-.111	.421	.261	.416	.220	.543	.739	.256
25	-2.012	-1.515	.847	.261	.062	.512	.587	-1.961
26	.264	.048	-.186	.097	-.152	.395	-2.624	.178

[redacted]

TABLE 27

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.141	.268	.226	.112	.091	.000	-.133	-.322
2	.131	.320	.321	.149	.069	-.097	-.208	-.455
3	.115	.400	.407	.260	-.034	-.109	-.229	-.488
4	.101	.586	.449	.305	-.476	-.399	-.241	-1.344
5	.165	.296	.116	.211	-.445	-.831	-.545	-1.623
6	.244	.000	-.065	-.145	-.326	-.873	-1.084	-1.360
7	.089	-.306	-.415	-.170	.004	-.627	-1.084	.249
8	-.177	-.274	-.295	-.131	.016	.026	-.880	.275
9	-.200	-.280	-.319	-.106	.055	.091	.133	.318
10	-.264	-.382	-.453	-.112	.067	.103	.127	.381
11	-.250	-.344	-1.695	-.108	.059	.119	.159	.460
12	-.282	-.396	-1.685	-.102	.040	.131	.180	.518
13	-.331	.260	.189	-.053	.081	.137	.204	-.757
14	-.371	.417	.053	-.016	.032	.117	.222	-1.273
15	-.423	.445	.376	.082	-.012	-.294	.237	-3.872
16	-.466	.670	.350	.102	-.148	-.323	.245	.498
17	.389	.398	.098	.131	-.686	-.387	-.488	.634
18	-.369	.119	-.067	.029	-.555	-1.171	-.684	-1.121
19	.234	-.276	-.348	-.352	-.439	-1.325	-.994	-4.623
20	-.300	-.241	-.364	-.339	.030	-1.075	-2.059	.674
21	.206	-.260	-.071	-.047	.049	.196	-1.700	-3.538
22	-.278	-.342	-.390	-.014	.077	.220	.339	-2.559
23	-.728	-.354	-.549	-.006	.079	.250	.388	-.727
24	.143	-1.139	-.435	.016	.087	.274	.465	.441
25	-.901	-.604	-.331	.037	.083	.321	.627	-.933
26	.179	.085	-.085	.037	.036	.347	-1.563	.298
				$\delta_e = 30°$				
1	.120	.206	.239	.156	.053	-.048	-.148	-.354
2	.114	.228	.253	.164	.018	-.151	-.225	-.475
3	.076	.283	.365	.214	-.076	-.143	-.247	-.521
4	.048	.411	.418	.228	-.596	-.447	-.239	-1.261
5	.102	.126	.209	.122	-.537	-.895	-.331	-1.776
6	.192	-.122	.096	-.212	-.406	-.994	-1.018	-1.455
7	.026	-.321	-.767	-.242	.004	-.722	-1.262	.236
8	-.198	-.317	-.353	-.112	.014	.018	-.978	.267
9	-.044	-.311	-.689	-.096	.041	.085	.126	.319
10	-.202	-.461	-.942	-.104	.039	.111	.136	.368
11	-.232	-.471	-2.375	-.108	.045	.123	.152	.438
12	-.291	-.457	-2.841	-.100	.008	.131	.170	.511
13	-.353	.255	.227	-.048	.010	.129	.189	-.798
14	-.367	.313	.036	-.018	-.033	.115	.211	-1.305
15	-.333	.383	.355	.102	-.064	-.334	.223	-4.119
16	-.367	.521	.392	.102	-.189	-.350	.237	.477
17	.240	.204	.145	.096	-.811	-.408	-.481	.608
18	-.433	-.038	-.024	.008	-.627	-1.197	-.667	-1.164
19	.150	-.295	-.317	-.404	-.525	-1.459	-.880	-4.711
20	-.321	-.253	-.357	-.394	.023	-1.171	-2.475	.653
21	.134	-.303	-.052	-.030	.043	.201	-1.919	-3.588
22	-.281	-.471	-.452	-.004	.066	.231	.320	-2.762
23	-.772	-.551	-.570	-.008	.066	.254	.389	-.804
24	.128	-.553	-.460	.012	.076	.280	.462	.398
25	-.912	-.661	-.365	.040	.057	.320	.606	-1.018
26	.188	.082	-.046	.044	.012	.348	-1.712	.275
				$\delta_e = 20°$				
1	.172	.206	.257	.126	.043	-.087	-.178	-.370
2	.156	.194	.232	.124	-.014	-.177	-.254	-.490
3	.146	.232	.335	.136	-.084	-.163	-.278	-.545
4	.144	.284	.487	.148	-.632	-.397	-.239	-.951
5	.162	.069	.283	.070	-.674	-.929	-.402	-2.041
6	.200	-.163	.148	-.254	-.460	-1.115	-1.172	-1.685
7	-.008	-.075	-1.117	-.324	-.006	-.760	-1.327	.234
8	-.216	-.081	-.263	-.152	.018	.006	-1.018	.260
9	.104	-.141	-1.478	-.132	.043	.091	.136	.309
10	.084	-.216	-1.632	-.150	.068	.111	.140	.366
11	.070	-.246	-2.027	-.152	.039	.121	.158	.443
12	.052	-.276	-2.103	-.128	.012	.125	.187	.522
13	.034	.222	.195	-.058	-.010	.125	.199	-.791
14	-.002	.230	.018	-.028	-.060	.099	.223	-1.299
15	-.132	.304	.287	.060	-.097	-.361	.233	-4.232
16	-.242	.365	.304	.072	-.121	-.371	.241	.467
17	.170	.133	-.002	.046	-.906	-.407	-.523	.612
18	-.100	-.093	-.125	-.024	-.764	-1.153	-.720	-1.167
19	.146	-.250	-.378	-.438	-.548	-1.579	-.899	-4.689
20	-.022	-.266	-.489	-.502	.023	-1.228	-2.420	.652
21	.154	-.337	-.045	-.050	.041	.194	-1.994	-3.553
22	.044	-.397	-.548	-.042	.072	.224	.343	-3.283
23	-.848	-.417	-.470	-.032	.074	.248	.402	-.911
24	.116	-.387	-.308	-.020	.084	.290	.497	.417
25	-1.052	-.748	-.524	.020	.060	.310	.629	-1.144
26	.178	.073	-.057	-.010	.018	.345	-1.751	.285

[redacted]

TABLE 27 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 0°$				
1	.164	.088	.074	-.032	-.082	-.179	-.295	-.448
2	.102	.044	-.008	-.034	-.138	-.274	-.347	-.579
3	.104	.024	-.048	-.048	-.202	-.274	-.395	-.631
4	.078	-.084	-.178	-.070	-.772	-.208	-.383	-.571
5	.070	-.325	-.495	-.153	-1.208	-.778	-.275	-2.714
6	.028	-.309	-.547	-.528	-.780	-1.931	-.661	-2.220
7	-.198	.080	.200	-.647	.106	-1.135	-2.138	.276
8	-.198	.078	.094	.064	.120	.123	-1.647	.300
9	.142	.050	.206	.098	.128	.151	.174	.335
10	.110	.066	.204	.084	.098	.165	.176	.403
11	.080	.056	.134	.082	.054	.159	.196	.478
12	.072	.046	.104	.086	-.002	.157	.214	.520
13	.060	.052	.004	.102	-.122	.151	.228	-.891
14	.044	.006	-.044	.058	-.162	.099	.244	-1.438
15	-.024	-.010	-.036	-.062	-.202	-.438	.259	-4.748
16	-.074	-.144	-.114	-.064	-.200	-.456	.236	.494
17	-.072	-.399	-.331	-.102	-1.122	-.419	-.601	.631
18	.012	-.377	-.423	-.167	-1.417	-.671	-.824	-1.252
19	.038	.072	.032	-.627	-.824	-2.407	-1.004	-5.268
20	.040	.070	.046	-.900	.116	-1.810	-3.459	.677
21	.064	.068	-.036	.102	.130	.244	-2.954	-3.903
22	.066	.048	.032	.129	.140	.266	.353	-4.099
23	-1.190	.070	-.054	.114	.124	.286	.419	-1.216
24	.086	.052	-.062	.120	.112	.310	.501	.419
25	-2.020	-1.307	.070	.100	.062	.345	.631	-1.526
26	.200	.082	-.030	.052	-.018	.361	-2.369	.274
				$\delta_e = -20°$				
1	.064	-.130	-.665	-.241	-.201	-.283	-.356	-.507
2	-.020	-.146	-.760	-.277	-.273	-.372	-.428	-.646
3	-.028	-.202	-1.293	-.327	-.341	-.378	-.446	-.669
4	-.082	-.429	-1.934	-.359	-.952	-.277	-.432	-.572
5	-.124	-.780	-2.285	-.462	-1.679	-.620	-.305	-3.329
6	-.239	-.932	-2.409	-.990	-1.074	-2.517	-.513	-2.590
7	-.538	.257	.519	-1.175	.221	-1.545	-2.619	.337
8	-.462	.301	.337	.291	.229	.220	-2.020	.364
9	.199	.327	.591	.333	.205	.208	.244	.402
10	.177	.351	.629	.335	.147	.216	.230	.450
11	.139	.339	.693	.331	.060	.198	.253	.517
12	.145	.281	.709	.297	-.046	.188	.263	.554
13	.127	-.244	-.397	.231	-.227	.172	.273	-.954
14	.100	-.311	-.305	.114	-.285	.095	.271	-1.570
15	.066	-.345	-.663	-.215	-.315	-.529	.281	-5.212
16	-.024	-.643	-1.034	-.237	-.315	-.535	.251	.554
17	-.291	-1.162	-1.333	-.313	-1.177	-.497	-.680	.675
18	.203	-1.108	-1.495	-.388	-2.018	-.491	-.914	-1.319
19	-.127	.373	.447	-.962	-1.127	-2.909	-1.049	-6.008
20	.203	.447	.517	-1.345	.211	-2.341	-4.112	.723
21	-.054	.467	-.126	.245	.217	.301	-3.405	-4.174
22	.207	.467	.531	.271	.213	.311	.413	-4.420
23	-1.528	.447	.379	.269	.183	.337	.466	-1.467
24	.060	.343	.162	.231	.133	.368	.530	.442
25	-2.972	-1.966	.547	.161	.048	.378	.623	-1.844
26	.213	.068	-.126	.064	-.058	.374	-2.585	.281
				$\delta_e = -30°$				
1	-.059	-.298	-1.024	-.327	-.266	-.300	-.388	-.547
2	-.168	-.250	-1.165	-.376	-.335	-.389	-.456	-.692
3	-.141	-.513	-1.853	-.428	-.400	-.389	-.480	-.708
4	-.172	-.698	-2.290	-.476	-1.018	-.302	-.454	-.590
5	-.341	-1.427	-1.905	-.574	-1.773	-.609	-.329	-3.600
6	-.451	-1.290	-1.692	-1.124	-1.174	-2.522	-.580	-2.686
7	-1.085	.344	.547	-1.259	.280	-1.577	-2.811	.345
8	-.968	.423	.435	.390	.280	.283	-2.161	.369
9	.214	.457	.652	.436	.233	.231	.265	.406
10	.212	.475	.636	.440	.158	.227	.269	.463
11	.176	.439	.521	.440	.071	.215	.285	.516
12	.180	.342	.463	.392	-.049	.206	.291	.549
13	.164	-.352	-.563	.279	-.282	.178	.293	-1.006
14	.143	-.388	-.443	.139	-.325	.085	.301	-1.649
15	.131	-.588	-.968	-.291	-.351	-.534	.295	-5.427
16	-.020	-1.235	-1.358	-.311	-.351	-.536	.269	.563
17	-.457	-1.503	-1.336	-.386	-1.252	-.492	-.713	.678
18	.299	-1.410	-1.392	-.462	-2.136	-.492	-.970	-1.402
19	-.281	.475	.563	-1.070	-1.201	-2.919	-1.096	-6.304
20	.291	.581	.624	-1.402	.243	-2.354	-4.339	.727
21	-.216	.614	-.159	.317	.247	.308	-3.574	-4.318
22	.277	.600	.614	.339	.254	.318	.432	-4.553
23	-1.572	.547	.461	.327	.215	.336	.490	-1.547
24	.065	.433	.243	.283	.152	.356	.560	.420
25	-2.990	-2.034	.644	.199	.067	.372	.653	-1.941
26	.222	.074	-.159	.084	-.061	.375	-2.693	.276

TABLE 27 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -40°$				
1	-.346	-.380	-.763	-.328	-.254	-.301	-.379	-.544
2	-.328	-.367	-.921	-.361	-.332	-.380	-.445	-.700
3	-.338	-.694	-1.378	-.424	-.396	-.378	-.470	-.706
4	-.438	-1.254	-1.247	-.463	-1.122	-.291	-.443	-.632
5	-.585	-1.098	-.985	-.528	-1.647	-.775	-.304	-3.460
6	-.844	-1.002	-.923	-1.029	-1.103	-2.447	-.872	-2.594
7	-1.444	.430	.627	-1.129	.338	-1.462	-2.758	.364
8	-.961	.553	.597	.491	.334	.266	-1.967	.391
9	.216	.606	.732	.532	.280	.270	.298	.433
10	.236	.618	.693	.551	.200	.272	.294	.480
11	.212	.568	.353	.541	.105	.254	.321	.536
12	.212	.459	.147	.486	-.016	.239	.321	.553
13	.201	-.338	-.521	.365	-.274	.214	.317	-1.002
14	.181	-.394	-.425	.213	-.328	.121	.317	-1.634
15	.160	-1.069	-.963	-.274	-.359	-.526	.311	-5.437
16	.015	-1.497	-1.131	-.309	-.357	-.530	.286	.573
17	-1.021	-1.063	-.838	-.380	-1.425	-.482	-.716	.683
18	.396	-.977	-.782	-.436	-1.917	-.597	-.977	-1.381
19	-.488	.629	.641	-1.079	-1.138	-2.921	-1.079	-6.441
20	.378	.740	.703	-1.332	.283	-2.237	-4.217	.729
21	-.407	.772	-.156	.376	.295	.343	-3.422	-4.333
22	.361	.753	.678	.407	.297	.355	.456	-4.460
23	-1.515	.700	.525	.393	.258	.376	.515	-1.499
24	.069	.564	.313	.349	.186	.391	.580	.431
25	-2.749	-1.830	.722	.250	.099	.412	.671	-1.855
26	.241	.103	-.154	.129	-.041	.412	-2.617	.280

TABLE 28

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 0°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.089	.359	.428	.354	.143	-.029	-.099	-.132
2	.112	.422	.484	.400	.129	-.054	-.099	-.149
3	.087	.480	.531	.415	.096	-.062	-.115	-.172
4	.079	.518	.543	.423	.069	-.064	-.126	-.201
5	.093	.559	.545	.400	.031	-.074	-.115	-.243
6	.138	.545	.498	.323	-.059	-.074	-.119	-.307
7	.161	-.261	-.291	.193	-.153	-.186	-.134	-.069
8	.138	-.282	-.285	-.226	-.139	-.143	-.148	-.063
9	-.248	-.369	-.412	-.209	-.084	-.118	-.123	-.029
10	-.264	-.455	-.525	-.220	-.041	-.108	-.123	.010
11	-.333	-.451	-1.865	-.217	-.020	-.072	-.103	.057
12	-.384	-.986	-1.811	-.209	.000	-.056	-.085	.148
13	-.429	.569	.383	-.148	.055	-.031	-.071	-.262
14	-.470	.590	.184	-.118	.043	.000	-.043	-.356
15	-.539	.600	.514	.224	.033	-.135	-.010	.067
16	-.659	.624	.527	.230	.014	-.145	.042	.019
17	.285	.731	.520	.228	-.002	-.162	-.206	.100
18	-.465	.722	.479	.189	-.010	-.172	-.243	-.330
19	.238	-.208	-.326	.136	-.149	-.184	-.291	.176
20	-.392	-.235	-.379	.045	-.151	-.209	-.391	.140
21	.205	-.365	-.018	-.177	-.127	-.106	.174	.339
22	-.303	-.437	-.477	-.161	-.106	-.081	-.055	-.013
23	-.417	-.588	-.607	-.152	-.069	-.056	-.034	-.105
24	.053	-1.214	-.553	-.122	-.037	-.023	.014	.146
25	-.114	-.075	-.400	-.069	-.010	.019	.144	-.172
26	-.004	-.020	-.016	-.039	.006	.079	-.267	.102
				$\delta_e = 30°$				
1	.066	.230	.379	.243	.078	-.060	-.133	-.183
2	.077	.275	.438	.286	.066	-.084	-.135	-.205
3	.058	.331	.490	.297	.031	-.086	-.149	-.226
4	.069	.360	.504	.299	.016	-.082	-.159	-.257
5	.095	.402	.607	.272	-.045	-.086	-.149	-.308
6	.145	.400	.791	.203	-.141	-.086	-.157	-.400
7	.135	-.234	-.547	.087	-.165	-.198	-.169	-.084
8	.077	-.273	-.293	-.214	-.151	-.150	-.173	-.076
9	-.151	-.416	-.801	-.203	-.107	-.123	-.121	-.037
10	-.218	-.594	-1.027	-.214	-.054	-.113	-.125	.010
11	-.282	-.535	-2.430	-.222	-.039	-.070	-.093	.064
12	-.332	-.640	-3.219	-.216	-.023	-.066	-.078	.162
13	-.332	.402	.373	-.160	.000	-.033	-.046	-.310
14	-.317	.453	.172	-.125	-.012	-.004	-.024	-.431
15	-.319	.491	.486	.145	-.023	-.142	.012	-.082
16	-.581	.521	.502	.156	-.033	-.160	.054	.023
17	.197	.566	.518	.139	-.052	-.169	-.233	.117
18	-.461	.485	.377	.112	-.062	-.175	-.274	-.400
19	.160	-.242	-.316	.079	-.219	-.191	-.336	.066
20	-.390	-.265	-.391	-.014	-.159	-.214	-.463	.148
21	.125	-.436	-.010	-.160	-.136	-.115	.022	.261
22	-.249	-.622	-.551	-.149	-.112	-.084	-.036	-.185
23	-.514	-.648	-.637	-.145	-.089	-.060	-.016	-.168
24	.062	-.756	-.580	-.120	-.048	-.031	.042	.166
25	-.135	-.168	-.443	-.068	-.025	.019	.185	-.253
26	.004	-.024	-.018	-.048	-.008	.080	-.507	.123
				$\delta_e = 20°$				
1	.099	.167	.331	.163	.024	-.091	-.150	-.163
2	.116	.199	.398	.185	.010	-.117	-.150	-.182
3	.103	.240	.459	.189	-.016	-.115	-.165	-.203
4	.105	.254	.508	.189	-.024	-.111	-.165	-.228
5	.126	.283	.793	.167	-.124	-.119	-.159	-.274
6	.155	.224	.728	.123	-.224	-.119	-.165	-.347
7	.116	-.079	-.969	-.018	-.159	-.215	-.177	-.071
8	.058	-.106	-.234	-.228	-.143	-.153	-.187	-.063
9	.008	-.165	-1.376	-.214	-.096	-.129	-.126	-.029
10	-.043	-.258	-1.518	-.226	-.049	-.125	-.118	.008
11	-.033	-.287	-1.943	-.226	-.039	-.076	-.098	.065
12	-.031	-.348	-2.242	-.200	-.022	-.066	-.085	.159
13	-.037	.289	.266	-.134	-.043	-.044	-.061	-.285
14	-.041	.333	.104	-.099	-.055	-.012	-.043	-.381
15	-.136	.366	.366	.086	-.065	-.167	.002	.002
16	-.260	.376	.380	.089	-.073	-.179	.047	.025
17	.138	.400	.335	.082	-.080	-.189	-.238	.107
18	-.141	.276	.140	.056	-.131	-.195	-.283	-.360
19	.130	-.254	-.370	.037	-.300	-.211	-.344	.128
20	-.076	-.207	-.490	-.086	-.151	-.231	-.461	.140
21	.109	-.327	-.024	-.161	-.137	-.123	.047	.310
22	-.064	-.423	-.577	-.148	-.114	-.097	-.053	-.088
23	-.568	-.459	-.484	-.140	-.082	-.072	-.028	-.132
24	.066	-.453	-.337	-.111	-.047	-.034	.031	.163
25	-.147	-.144	-.518	-.064	-.020	.008	.165	-.224
26	.006	-.024	-.022	-.051	-.010	.074	-.469	.109

TABLE 28 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 0°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 10°$				
1	.127	.093	.377	.065	-.028	-.131	-.174	-.218
2	.135	.099	.383	.079	-.033	-.147	-.170	-.235
3	.113	.119	.389	.067	-.053	-.155	-.180	-.256
4	.099	.121	.397	.067	-.051	-.149	-.182	-.291
5	.096	.141	.621	.053	-.201	-.155	-.170	-.345
6	.107	-.053	.424	.039	-.307	-.147	-.176	-.441
7	.094	-.016	-.473	-.183	-.102	-.398	-.172	-.058
8	-.097	-.057	-.086	-.146	-.089	-.121	-.190	-.054
9	.119	-.097	-.634	-.126	-.049	-.097	-.107	-.012
10	.101	-.113	-.652	-.138	-.014	-.091	-.115	.031
11	.084	-.129	-.887	-.142	-.004	-.054	-.083	.092
12	.058	-.113	-.936	-.118	.004	-.042	-.079	.189
13	.041	.150	.089	-.051	-.079	-.020	-.057	-.353
14	.016	.172	.025	-.033	-.087	.008	-.032	-.470
15	-.039	.194	.165	.008	-.094	-.207	-.002	-.220
16	-.097	.180	.158	.010	-.098	-.215	.046	.044
17	.060	.198	.095	.000	-.100	-.227	-.244	.143
18	-.057	-.010	-.068	-.014	-.193	-.239	-.293	-.437
19	.074	-.141	-.156	-.028	-.374	-.258	-.349	-.042
20	-.019	-.160	-.224	-.213	-.106	-.284	-.448	.173
21	.086	-.202	-.006	-.112	-.094	-.099	.073	.171
22	.039	-.222	-.222	-.094	-.071	-.068	-.055	-.349
23	-.645	-.212	-.144	-.093	-.051	-.040	-.020	-.198
24	.076	-.188	-.060	-.071	-.016	-.008	.016	.185
25	-.175	-.305	-.212	-.031	.002	.034	.152	-.333
26	.019	-.002	-.012	-.016	.000	.103	-.402	.127
				$\delta_e = 0°$				
1	.141	.040	.074	-.033	-.082	-.167	-.212	-.250
2	.133	.022	.043	-.023	-.094	-.184	-.210	-.263
3	.104	.006	-.010	-.041	-.106	-.184	-.220	-.293
4	.087	-.024	-.043	-.050	-.098	-.176	-.224	-.325
5	.071	-.075	-.121	-.058	-.320	-.180	-.214	-.386
6	.062	-.180	-.407	-.068	-.420	-.167	-.216	-.501
7	-.031	.022	.080	-.369	-.051	-.506	-.227	-.048
8	-.089	.004	.016	-.047	-.041	-.092	-.212	-.040
9	.129	-.008	.086	-.019	-.010	-.073	-.071	-.006
10	.112	.004	.105	-.017	.018	-.067	-.071	.042
11	.079	.002	.043	-.019	.014	-.035	-.051	.105
12	.060	.022	.058	-.012	.014	-.025	-.043	.216
13	.050	.020	-.054	.019	-.127	.000	-.018	-.380
14	.039	.014	-.041	.016	-.133	.022	.004	-.503
15	-.025	.000	-.043	-.058	-.137	-.227	.033	-.283
16	-.060	-.032	-.054	-.058	-.139	-.233	.090	.046
17	-.021	-.073	-.033	-.070	-.133	-.243	-.284	.152
18	-.006	-.250	-.249	-.089	-.294	-.251	-.327	-.465
19	.019	.000	-.029	-.078	-.476	-.275	-.400	-.077
20	.012	-.008	-.027	-.361	-.071	-.298	-.537	.182
21	.064	-.008	-.033	-.041	-.057	-.075	-.165	.149
22	.046	-.016	-.008	-.027	-.033	-.045	-.004	-.438
23	-.703	.006	-.054	-.021	-.018	-.018	.016	-.236
24	.081	.026	-.080	-.008	-.002	.016	.075	.210
25	-.193	-.479	-.010	.008	.014	.047	.216	-.450
26	.029	.008	-.035	.012	.014	.118	-.800	.147
				$\delta_e = -10°$				
1	.107	-.008	-.293	-.108	-.128	-.206	-.237	-.264
2	.098	-.020	-.426	-.124	-.135	-.222	-.233	-.285
3	.082	-.077	-.739	-.139	-.151	-.224	-.245	-.315
4	.055	-.153	-.752	-.160	-.133	-.216	-.243	-.348
5	.029	-.276	-.876	-.170	-.468	-.216	-.239	-.413
6	.008	-.748	-1.415	-.178	-.522	-.194	-.239	-.537
7	-.197	.071	.381	-.600	.017	-.700	-.255	-.014
8	-.568	.095	.118	.069	.023	-.065	-.231	-.012
9	.104	.125	.466	.097	.035	-.041	-.049	.026
10	.107	.155	.481	.097	.052	-.035	-.053	.061
11	.088	.159	.546	.108	.048	-.014	-.024	.134
12	.082	.165	.654	.108	.037	-.002	-.012	.240
13	.090	-.095	-.248	.100	-.164	.016	.004	-.402
14	.082	-.115	-.159	.083	-.164	.033	.025	-.541
15	.004	-.179	-.320	-.110	-.168	-.261	.053	-.407
16	-.053	-.252	-.407	-.116	-.172	-.271	.100	.075
17	-.100	-.369	-.360	-.135	-.149	-.280	-.314	.185
18	.076	-.772	-.874	-.149	-.431	-.292	-.355	-.502
19	-.004	.135	.147	-.131	-.547	-.310	-.429	-.193
20	.070	.165	.181	-.490	-.015	-.339	-.578	.203
21	.057	.202	-.077	.035	-.002	-.051	-.294	.041
22	.072	.206	.228	.058	.010	-.025	.002	-.598
23	-.787	.214	.147	.062	.008	.000	.039	-.280
24	.107	.228	.065	.062	.033	.031	.088	.234
25	-.201	-.405	.216	.062	.033	.073	.239	-.673
26	.057	.028	-.084	.054	.029	.133	-.957	.161

TABLE 28 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 0°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -20°$				
1	.010	-.122	-.667	-.191	-.189	-.224	-.277	-.270
2	-.034	-.074	-.866	-.212	-.203	-.245	-.279	-.297
3	-.050	-.151	-1.283	-.245	-.217	-.239	-.287	-.330
4	-.074	-.263	-1.565	-.262	-.189	-.228	-.291	-.365
5	-.076	-.600	-1.923	-.287	-.605	-.226	-.281	-.434
6	-.082	-1.604	-3.079	-.289	-.680	-.202	-.289	-.573
7	-.434	.135	.402	-.886	.068	-.829	-.291	.019
8	-1.016	.191	.211	.177	.072	-.023	-.345	.023
9	.088	.239	.530	.212	.078	-.004	-.004	.060
10	.084	.293	.569	.224	.070	.002	-.012	.106
11	.070	.303	.691	.227	.066	.019	.018	.174
12	.076	.283	.793	.208	.045	.025	.028	.272
13	.092	-.219	-.419	.181	-.217	.045	.046	-.409
14	.116	-.159	-.295	.135	-.219	.056	.064	-.550
15	.070	-.277	-.594	-.168	-.219	-.270	.092	-.537
16	-.004	-.464	-.789	-.185	-.219	-.280	.139	.106
17	-.167	-.807	-.758	-.204	-.195	-.296	-.347	.208
18	.163	-1.649	-1.711	-.224	-.551	-.307	-.392	-.512
19	-.102	.263	.350	-.200	-.664	-.333	-.484	-.266
20	.127	.325	.413	-.665	.025	-.360	-.657	.226
21	-.048	.378	-.104	.116	.031	-.021	-.598	-.008
22	.096	.396	.492	.131	.045	.006	.054	-.728
23	-.878	.398	.382	.137	.041	.027	.082	-.346
24	.124	.388	.209	.119	.051	.060	.145	.263
25	-.223	-.592	.461	.104	.051	.099	.309	-.907
26	.082	.030	-.102	.081	.029	.152	-1.323	.193
				$\delta_e = -30°$				
1	-.157	-.302	-.890	-.243	-.230	-.263	-.301	-.303
2	-.147	-.322	-.800	-.274	-.248	-.282	-.305	-.329
3	-.203	-.487	-.658	-.304	-.261	-.280	-.319	-.357
4	-.327	-.637	-1.495	-.337	-.232	-.267	-.319	-.395
5	-.388	-1.035	-2.695	-.372	-.752	-.271	-.311	-.467
6	-.380	-1.924	-4.491	-.414	-.810	-.216	-.321	-.639
7	-.869	.251	.460	-1.198	.131	-1.045	-.317	.040
8	-.942	.314	.326	.287	.127	.022	-.424	.040
9	.084	.376	.587	.326	.113	.035	.018	.080
10	.112	.435	.629	.339	.105	.039	.010	.118
11	.102	.442	.578	.337	.079	.049	.034	.184
12	.102	.411	.582	.316	.053	.057	.046	.305
13	.124	-.318	-.507	.256	-.251	.073	.055	-.437
14	.141	-.476	-.338	.168	-.263	.075	.079	-.587
15	.108	-.489	-.615	-.222	-.259	-.308	.105	-.683
16	.020	-.782	-.908	-.235	-.261	-.318	.145	.124
17	-.514	-1.326	-1.008	-.262	-.224	-.333	-.376	.238
18	.265	-2.212	-2.318	-.281	-.699	-.351	-.424	-.541
19	-.416	.423	.470	-.264	-.770	-.378	-.523	-.371
20	.205	.497	.527	-.921	.067	-.376	-.703	.257
21	-.193	.559	-.122	.189	.075	.020	-.727	-.088
22	.177	.577	.625	.212	.081	.047	.067	-.908
23	-.936	.583	.503	.208	.065	.063	.095	-.459
24	.145	.534	.273	.191	.077	.088	.156	.281
25	-.209	-.852	.582	.156	.055	.131	.329	-1.116
26	.104	.060	-.120	.112	.038	.192	-1.430	.210
				$\delta_e = -40°$				
1	-.276	-.343	-.490	-.231	-.214	-.256	-.280	-.320
2	-.336	-.376	-.361	-.253	-.214	-.272	-.278	-.345
3	-.443	-.518	-.690	-.292	-.222	-.272	-.287	-.376
4	-.557	-.894	-.837	-.316	-.192	-.249	-.289	-.427
5	-.648	-.800	-2.014	-.343	-.646	-.254	-.280	-.503
6	-.724	-1.010	-2.024	-.367	-.754	-.203	-.289	-.696
7	-.911	.349	.502	-1.190	.180	-1.056	-.289	.055
8	-.742	.433	.431	.402	.184	.060	-.343	.060
9	.091	.506	.633	.435	.164	.076	.045	.099
10	.099	.569	.669	.449	.143	.076	.035	.148
11	.076	.567	.373	.447	.119	.078	.063	.216
12	.087	.524	.206	.416	.085	.087	.069	.320
13	.097	-.290	-.443	.341	-.232	.109	.081	-.466
14	.113	-.345	-.302	.245	-.228	.097	.102	-.614
15	.135	-.553	-.641	-.216	-.228	-.298	.124	-.875
16	.064	-.959	-.798	-.227	-.228	-.308	.157	.138
17	-.746	-.869	-.867	-.257	-.192	-.326	-.348	.251
18	.332	-1.837	-1.571	-.265	-.576	-.336	-.400	-.583
19	-.559	.567	.510	-.259	-.711	-.364	-.492	-.515
20	.270	.639	.573	-.945	.115	-.358	-.665	.273
21	-.416	.690	-.135	.261	.119	.048	-.652	-.203
22	.227	.725	.659	.275	.125	.072	.077	-1.123
23	-.952	.720	.569	.269	.111	.093	.106	-.634
24	.151	.653	.431	.251	.103	.119	.161	.306
25	-.209	-.933	.622	.202	.091	.159	.329	-1.347
26	.121	.076	-.135	.155	.065	.217	-1.368	.220

TABLE 29

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.061	.327	.514	.389	.175	.049	.017	.048
2	.090	.408	.583	.434	.179	.049	.035	.060
3	.061	.484	.628	.450	.167	.060	.043	.088
4	.053	.522	.670	.464	.148	.080	.062	.137
5	.076	.575	.634	.432	.124	.089	.083	.211
6	.133	.547	.526	.368	.089	.103	.111	.345
7	.157	-.410	-.472	.286	-.299	.118	.136	-.430
8	.074	-.445	-.457	-.342	-.311	-.342	.173	-.456
9	-.317	-.576	-.668	-.331	-.309	-.353	-.350	-.478
10	-.401	-.718	-.937	-.323	-.256	-.338	-.359	-.504
11	-.507	-.829	-3.043	-.370	-1.097	-.338	-.373	-.586
12	-.597	-1.092	-1.990	-.370	-.998	-.348	-.377	-.771
13	-.669	.588	.490	-.358	.105	-.278	-.373	.124
14	-.718	.627	.239	-1.558	.105	-1.225	-.394	.259
15	-.957	.676	.615	.247	.105	.049	-.375	-.157
16	-.802	.727	.654	.264	.103	.068	-.350	-.562
17	.272	.755	.654	.272	.111	.087	.070	-.725
18	-.701	.694	.532	.252	.095	.128	.109	.247
19	.227	-.331	-.433	.204	.076	.171	.173	-.108
20	-.607	-.382	-.510	.176	-.317	.227	.340	-.651
21	.184	-.565	-.010	-.305	-.318	-.421	-.606	.135
22	-.468	-.759	-.721	-.297	-.313	-.423	-.456	-.279
23	.170	-.924	-.877	-.323	-.320	-.441	-.501	.173
24	-1.068	-1.584	-1.528	-.319	-.252	-.456	-.569	-.811
25	.133	.098	-.579	-.274	-.940	-.456	-.781	.233
26	-.286	-1.175	-.020	-1.327	-1.012	-.507	-.198	-1.129
				$\delta_e = 30°$				
1	.056	.236	.463	.269	.117	.014	.004	.045
2	.071	.292	.535	.314	.122	.012	.021	.056
3	.060	.357	.582	.320	.115	.023	.025	.085
4	.073	.395	.625	.326	.105	.041	.045	.136
5	.099	.442	.698	.310	.082	.060	.068	.202
6	.145	.427	.810	.264	.054	.074	.099	.328
7	.101	-.302	-.667	.190	-.299	.095	.119	-.410
8	.014	-.369	-.402	-.328	-.307	-.331	.156	-.433
9	-.216	-.526	-1.031	-.320	-.315	-.333	-.364	-.452
10	-.302	-.742	-1.502	-.326	-.266	-.327	-.379	-.476
11	-.387	-1.097	-4.551	-.374	-.984	-.319	-.381	-.551
12	-.438	-2.238	-7.080	-.397	-.973	-.327	-.389	-.728
13	-.448	.438	.449	-.391	.043	-.286	-.383	.117
14	-.486	.494	.231	-1.570	.056	-1.019	-.409	.245
15	-1.153	.552	.573	.169	.070	.012	-.374	-.043
16	-1.147	.577	.622	.184	.068	.031	-.360	-.532
17	.196	.605	.576	.198	.072	.054	.066	-.691
18	-.629	.554	.398	.182	.070	.093	.101	.237
19	.171	-.361	-.394	.151	.056	.135	.163	.002
20	-.514	-.379	-.475	.132	-.317	.190	.335	-.608
21	.127	-.556	.006	-.293	-.309	-.404	-.644	.225
22	-.345	-.794	-.778	-.291	-.318	-.400	-.467	-.150
23	.149	-1.327	-1.006	-.318	-.315	-.414	-.514	.181
24	-1.075	-2.478	-2.612	-.324	-.264	-.422	-.593	-.748
25	.109	.079	-.598	-.291	-.810	-.424	-.796	.225
26	-.306	-.940	.000	-1.318	-.990	-.476	-.239	-.936
				$\delta_e = 20°$				
1	.052	.140	.378	.163	.064	-.023	-.049	.033
2	.080	.181	.465	.194	.072	-.016	-.034	.047
3	.062	.241	.543	.202	.076	.000	-.020	.080
4	.074	.268	.669	.209	.076	.027	-.004	.123
5	.097	.304	.788	.202	.068	.033	.022	.193
6	.140	.298	.871	.178	.045	.062	.053	.330
7	.062	-.140	-.753	.134	-.266	.085	.081	-.426
8	-.021	-.191	-.329	-.300	-.280	-.324	.125	-.439
9	-.072	-.249	-1.265	-.291	-.289	-.303	-.340	-.463
10	-.128	-.377	-1.763	-.308	-.243	-.315	-.358	-.486
11	-.132	-.776	-3.086	-.345	-.868	-.311	-.356	-.572
12	-.134	-1.755	-5.176	-.357	-.858	-.322	-.358	-.748
13	-.124	.288	.292	-.329	.010	-.280	-.354	.111
14	-.151	.339	.135	-1.343	.016	-.963	-.375	.250
15	-.790	.391	.408	.093	.033	-.004	-.364	-.127
16	-1.342	.393	.429	.109	.035	.019	-.306	-.541
17	.130	.436	.388	.130	.049	.043	.026	-.705
18	-.258	.414	.239	.118	.058	.074	.053	.238
19	.105	-.239	-.335	.107	.049	.120	.109	-.066
20	-.171	-.228	-.447	.093	-.289	.177	.273	-.633
21	.076	-.379	-.002	-.264	-.287	-.396	-.223	.170
22	-.146	-.576	-.694	-.262	-.285	-.400	-.433	-.234
23	.134	-.969	-.724	-.289	-.287	-.398	-.472	.184
24	-.950	-1.813	-1.865	-.297	-.245	-.419	-.522	-.779
25	.089	.051	-.543	-.256	-.711	-.419	-.702	.221
26	-.293	-.813	.006	-1.180	-.887	-.460	.093	-1.078

TABLE 29 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 0°$				
1	.095	-.010	.039	-.040	-.059	-.085	-.078	-.027
2	.091	-.014	.063	-.030	-.035	-.071	-.063	-.012
3	.059	-.012	.039	-.034	-.021	-.050	-.047	.020
4	.042	-.020	.049	-.026	.014	-.018	-.023	.074
5	.032	-.002	.035	-.020	.020	.006	-.002	.135
6	.040	.030	.194	.016	.016	.030	.039	.264
7	-.065	-.018	-.027	.026	-.158	.067	.063	-.368
8	-.067	-.030	-.020	-.113	-.174	-.260	.111	-.397
9	.099	-.049	-.031	-.091	-.180	-.270	-.283	-.415
10	.073	-.055	-.024	-.101	-.150	-.278	-.299	-.434
11	.053	-.223	-.165	-.111	-.547	-.260	-.295	-.503
12	.034	-.263	-.796	-.125	-.566	-.276	-.307	-.654
13	.008	-.018	-.092	-.087	-.080	-.238	-.301	.059
14	-.004	-.014	-.057	-.589	-.070	-.831	-.330	.192
15	-.234	.000	-.053	-.049	-.049	-.036	-.314	.114
16	-.180	-.012	-.053	-.040	-.035	-.006	-.275	-.505
17	-.046	.018	.004	-.024	.006	.018	.012	-.671
18	-.051	.043	-.125	-.018	.018	.054	.047	.176
19	-.012	-.065	-.063	.014	.023	.103	.102	.137
20	-.024	-.049	-.075	.024	-.195	.161	.268	-.575
21	.016	-.065	-.033	-.123	-.207	-.359	-.184	.313
22	.012	-.109	-.078	-.113	-.205	-.365	-.391	.043
23	.107	-.223	-.176	-.134	-.215	-.377	-.430	.117
24	-.800	-.379	-.292	-.148	-.182	-.379	-.490	-.640
25	.050	.032	-.071	-.121	-.447	-.391	-.658	.168
26	-.269	-.662	-.043	-.605	-.648	-.435	.133	-.614
				$\delta_e = -20°$				
1	.018	-.181	-.848	-.222	-.149	-.139	-.123	-.063
2	.006	-.106	-1.107	-.224	-.128	-.125	-.099	-.051
3	.004	-.168	-1.559	-.242	-.091	-.100	-.086	-.020
4	-.006	-.243	-1.407	-.244	-.037	-.068	-.062	.027
5	-.018	-.256	-1.240	-.216	-.019	-.046	-.033	.094
6	-.025	-.318	-1.250	-.164	.000	-.010	.002	.208
7	-.105	.073	.277	-.099	-.031	.023	.029	-.292
8	-.217	.125	.173	.113	-.050	-.168	.078	-.316
9	.045	.179	.400	.142	-.072	-.172	-.218	-.329
10	.061	.218	.489	.146	-.066	-.181	-.232	-.339
11	.057	.245	.949	.144	-.224	-.162	-.234	-.365
12	.076	.110	.690	.115	-.321	-.180	-.246	-.488
13	.088	-.301	-.526	.097	-.149	-.172	-.244	.027
14	.100	-.262	-.351	-.131	-.135	-.369	-.259	.145
15	.072	-.320	-.628	-.183	-.101	-.077	-.246	.310
16	-.068	-.395	-.702	-.168	-.083	-.060	-.242	-.416
17	-.135	-.414	-.548	-.148	-.035	-.031	-.023	-.557
18	.123	-.428	-.454	-.127	-.006	.008	.014	.141
19	-.063	.191	.246	-.078	.012	.046	.072	.310
20	.100	.249	.302	-.043	-.097	.110	.228	-.476
21	-.018	.293	-.099	.027	-.099	-.261	.064	.429
22	.064	.303	.392	.029	-.112	-.266	-.343	.300
23	.094	.335	.267	.014	-.124	-.274	-.386	.075
24	-.637	.181	.084	-.004	-.116	-.282	-.425	-.427
25	.029	-.008	.341	-.014	-.193	-.278	-.573	.129
26	-.209	-.283	-.097	-.263	-.445	-.299	.322	-.324
				$\delta_e = -30°$				
1	-.110	-.318	-1.019	.010 -.247	-.164	-.139	-.123	-.075
2	-.136	-.287	-.761	-.257	-.145	-.129	-.107	-.063
3	-.202	-.423	-1.252	-.275	-.108	-.106	-.094	-.028
4	-.215	-.515	-1.497	-.292	-.050	-.066	-.066	.012
5	-.198	-.483	-1.734	-.276	-.025	-.039	-.041	.077
6	-.155	-.662	-2.204	-.224	-.010	-.008	-.008	.200
7	-.260	.173	.329	-.157	.035	.035	.027	-.286
8	-.703	.245	.237	.231	.015	-.125	.066	-.312
9	.023	.318	.468	.255	-.010	-.129	-.181	-.323
10	.048	.363	.532	.267	-.023	-.137	-.195	-.335
11	.052	.408	.894	.265	-.151	-.139	-.191	-.389
12	.083	.336	.742	.235	-.251	-.148	-.207	-.490
13	.110	-.417	-.576	.188	-.164	-.141	-.203	.020
14	.136	-.497	-.362	.012	-.159	-.355	-.228	.141
15	.103	-.550	-.732	-.198	-.114	-.079	-.211	.339
16	.050	-.683	-.890	-.192	-.091	-.054	-.218	-.413
17	-.318	-.738	-.803	-.178	-.039	-.029	-.031	-.562
18	.223	-.796	-.805	-.155	-.014	.008	.010	.135
19	-.312	.330	.343	-.102	.015	.058	.064	.333
20	.161	.410	.399	-.059	-.041	.114	.214	-.480
21	-.176	.466	-.112	.114	-.052	-.239	.152	.452
22	.101	.480	.518	.125	-.060	-.233	-.314	.323
23	.072	.532	.472	.102	-.077	-.243	-.349	.056
24	-.548	.398	.272	.073	-.077	-.264	-.405	-.425
25	.010	-.016	.457	.047	-.149	-.247	-.536	.119
26	-.192	-.223	-.118	-.133	-.371	-.283	.382	-.313

TABLE 29 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -40°$				
1	-.243	-.313	-.357	-.196	-.148	-.131	-.117	-.040
2	-.312	-.338	-.295	-.196	-.130	-.129	-.101	-.025
3	-.388	-.420	-.482	-.214	-.088	-.098	-.085	.006
4	-.459	-.486	-.584	-.220	-.037	-.061	-.057	.054
5	-.514	-.551	-.635	-.194	-.010	-.041	-.028	.115
6	-.539	-.600	-.676	-.127	.006	-.006	.008	.233
7	-.661	.258	.367	-.071	.089	.033	.042	-.242
8	-.580	.350	.351	.341	.072	-.100	.087	-.269
9	-.002	.422	.518	.360	.037	-.109	-.174	-.279
10	.018	.479	.588	.372	.016	-.115	-.188	-.300
11	.002	.521	.604	.378	-.084	-.113	-.188	-.348
12	.018	.480	.713	.343	-.189	-.127	-.202	-.448
13	.035	-.279	-.429	.287	-.142	-.119	-.208	.052
14	.057	-.299	-.258	.115	-.134	-.283	-.227	.167
15	.069	-.406	-.517	-.166	-.105	-.084	-.215	.323
16	.059	-.512	-.586	-.158	-.082	-.061	-.208	-.377
17	-.498	-.611	-.350	-.141	-.037	-.035	-.012	-.513
18	.239	-.602	-.260	-.109	-.008	.004	.026	.167
19	-.449	.461	.371	-.053	.019	.047	.077	.329
20	.176	.525	.437	-.018	.002	.102	.235	-.442
21	-.361	.604	-.097	.200	-.012	-.221	.051	.448
22	.129	.625	.565	.196	-.025	-.230	-.320	.302
23	.071	.682	.602	.178	-.049	-.234	-.356	.098
24	-.488	.566	.441	.137	-.049	-.250	-.417	-.394
25	.010	.008	.487	.097	-.105	-.238	-.559	.152
26	-.175	-.158	-.099	-.089	-.317	-.268	.314	-.290

TABLE 30

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.025	.347	.575	.424	.266	.195	.219	.314
2	.091	.433	.649	.470	.284	.221	.248	.356
3	.079	.517	.715	.484	.290	.238	.269	.413
4	.083	.573	.751	.495	.261	.267	.290	.481
5	.104	.612	.689	.487	.199	.269	.315	.572
6	.155	.565	.596	.435	.100	.265	.356	.663
7	.191	-.624	-1.150	.331	-.423	.226	.371	-.823
8	.103	-.700	-.753	-.489	-.405	-.495	.381	-.848
9	-.453	-.969	-1.450	-.480	-.847	-.441	-.600	-1.367
10	-.518	-.969	-2.192	-.491	-1.566	-.427	-.586	-2.344
11	-.596	-.969	-1.439	-.485	-1.212	-1.391	-.538	-2.181
12	-.663	-.963	-1.194	-.845	-1.176	-1.849	-.886	-2.048
13	-.718	.602	.563	-1.207	.226	-1.644	-1.629	.534
14	-.772	.673	.278	-1.023	.230	-1.495	-1.986	.694
15	-.977	.727	.705	.311	.245	.284	-1.841	-3.439
16	-.839	.756	.746	.337	.249	.315	-1.679	-1.361
17	.315	.760	.715	.360	.241	.358	.402	-3.015
18	-.841	.684	.567	.338	.193	.402	.474	.719
19	.257	-.665	-.695	.298	.091	.445	.576	-4.297
20	-.764	-.967	-.841	.238	-.444	.484	.735	-1.892
21	.193	-1.131	-.016	-.424	-.431	-.706	-2.559	-4.722
22	-.580	-1.187	-1.117	-.406	-.365	-.747	-1.043	-3.095
23	.251	-1.113	-1.023	-.422	-.985	-1.574	-1.157	.325
24	-1.580	-1.068	-.920	-.793	-1.683	-2.132	-2.764	-1.983
25	.321	.195	-.847	-1.420	-1.359	-2.000	-2.650	.416
26	-1.694	-1.468	-.029	-1.126	-1.326	-1.820	-2.369	-1.819
				$\delta_e = 30°$				
1	.080	.248	.503	.321	.206	.170	.206	.285
2	.123	.321	.575	.364	.226	.188	.227	.324
3	.101	.395	.642	.377	.238	.209	.250	.384
4	.095	.424	.696	.391	.210	.234	.283	.452
5	.095	.476	.811	.379	.145	.242	.304	.542
6	.113	.443	.825	.333	.033	.244	.344	.649
7	.074	-.369	-1.467	.237	-.468	.197	.365	-.825
8	-.016	-.402	-.686	-.500	-.485	-.535	.371	-.889
9	-.173	-.621	-2.962	-.514	-.464	-.521	-.612	-1.179
10	-.239	-1.106	-4.493	-.558	-2.310	-.490	-.606	-2.142
11	-.288	-1.557	-4.018	-.576	-1.870	-1.002	-.581	-2.263
12	-.362	-1.482	-3.445	-.737	-1.578	-1.824	-.723	-2.349
13	-.477	.449	.481	-1.942	.175	-2.148	-1.335	.505
14	-.687	.522	.239	-1.414	.189	-2.150	-1.858	.671
15	-1.340	.588	.630	.243	.204	.270	-1.919	-3.402
16	-1.060	.600	.666	.272	.216	.305	-2.508	-1.335
17	.198	.621	.598	.294	.202	.348	.390	-2.659
18	-.895	.551	.429	.274	.149	.395	.467	.698
19	.185	-.733	-.724	.245	.039	.430	.558	-4.029
20	-.453	-.594	-.924	.185	-.481	.479	.721	-1.844
21	.158	-.897	-.020	-.434	-.481	-.752	-3.090	-4.370
22	-.286	-1.505	-1.590	-.442	-.456	-.779	-1.065	-3.207
23	.222	-1.926	-1.938	-.479	-.515	-1.330	-1.250	.316
24	-1.963	-1.878	-1.720	-.558	-2.289	-2.117	-2.671	-3.086
25	.294	.162	-1.157	-2.206	-2.045	-2.139	-2.735	.402
26	-2.138	-2.213	-.018	-1.533	-1.725	-2.137	-3.090	-2.959
				$\delta_e = 20°$				
1	.052	.158	.380	.206	.163	.126	.160	.283
2	.087	.216	.461	.238	.179	.151	.186	.316
3	.078	.282	.600	.250	.202	.171	.204	.379
4	.078	.306	.797	.267	.187	.212	.239	.449
5	.068	.354	.913	.277	.134	.220	.261	.533
6	.076	.342	.876	.250	.033	.236	.308	.641
7	.004	-.230	-1.057	.182	-.413	.200	.332	-.846
8	-.062	-.254	-.419	-.418	-.428	-.497	.348	-.908
9	-.058	-.496	-1.972	-.424	-.456	-.499	-.623	-1.242
10	-.099	-.952	-2.972	-.469	-2.224	-.491	-.621	-2.320
11	-.120	-1.402	-4.053	-.497	-1.650	-.841	-.603	-2.305
12	-.186	-1.300	-3.766	-.556	-1.442	-1.548	-.696	-2.273
13	-.329	.310	.311	-1.962	.136	-2.028	-1.170	.514
14	-.583	.376	.144	-1.388	.147	-2.061	-1.713	.684
15	-1.194	.438	.443	.158	.175	.232	-1.775	-3.523
16	-.924	.450	.453	.182	.191	.273	-2.680	-1.381
17	.091	.494	.413	.212	.185	.314	.358	-2.840
18	-.797	.464	.278	.208	.141	.365	.433	.711
19	.110	-.484	-.514	.194	.041	.417	.534	-4.270
20	-.300	-.448	-.661	.158	-.452	.464	.706	-1.928
21	.081	-.714	-.018	-.380	-.440	-.711	-2.901	-4.674
22	-.143	-1.234	-1.110	-.392	-.405	-.756	-1.051	-3.238
23	.209	-1.666	-1.911	-.436	-.527	-1.208	-1.235	.314
24	-1.913	-1.522	-1.530	-.459	-2.251	-1.872	-2.492	-2.656
25	.275	.160	-.811	-2.051	-1.817	-1.978	-2.666	.391
26	-2.045	-2.032	-.020	-1.600	-1.605	-2.018	-3.208	-2.520

TABLE 30 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 90°$; $\alpha = 20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 0°$				
1	.037	-.053	.047	-.024	.037	.060	.100	.249
2	.043	-.055	.101	-.006	.060	.084	.135	.290
3	.018	-.047	.127	-.004	.110	.116	.155	.353
4	-.021	-.055	.080	.008	.128	.159	.190	.427
5	-.061	.002	.281	.036	.114	.183	.223	.519
6	-.082	.043	.320	.083	.060	.203	.266	.641
7	-.160	-.095	-.144	.087	-.261	.195	.301	-.780
8	-.152	-.115	-.096	-.193	-.277	-.420	.325	-.828
9	.043	-.178	-.175	-.181	-.631	-.400	-.519	-1.367
10	.018	-.524	-.630	-.201	-1.280	-.432	-.532	-2.037
11	-.021	-.569	-.986	-.225	-1.010	-1.018	-.511	-1.929
12	-.078	-.530	-.922	-.563	-.977	-1.476	-.716	-1.797
13	-.211	-.049	-.123	-.978	.041	-1.574	-1.198	.479
14	-.451	-.028	-.076	-.755	.052	-1.432	-1.599	.664
15	-.510	-.010	-.074	-.006	.093	.199	-1.638	-3.002
16	-.408	-.016	-.115	.020	.120	.239	-1.618	-1.292
17	-.150	.055	-.162	.050	.145	.283	.317	-2.795
18	-.510	.091	-.187	.080	.128	.339	.399	.681
19	-.078	-.132	-.111	.103	.066	.394	.497	-3.707
20	-.139	-.138	-.133	.103	-.329	.450	.683	-1.801
21	-.037	-.188	-.053	-.225	-.323	-.667	-2.599	-4.230
22	-.053	-.583	-.468	-.229	-.309	-.735	-.930	-2.801
23	.230	-.638	-.669	-.266	-.772	-1.265	-1.082	.295
24	-1.365	-.583	-.554	-.551	-1.414	-1.777	-2.237	-1.668
25	.246	.138	-.152	-1.197	-1.153	-1.813	-2.429	.382
26	-1.471	-1.265	-.051	-.930	-1.122	-1.755	-2.141	-1.504
				$\delta_e = -20°$				
1	-.045	-.269	-.977	-.219	-.071	.008	.076	.197
2	-.025	-.206	-1.240	-.219	-.038	.048	.101	.246
3	-.022	-.251	-1.754	-.227	.020	.071	.128	.301
4	-.057	-.302	-1.579	-.209	.065	.125	.167	.384
5	-.110	-.277	-1.205	-.169	.073	.152	.196	.474
6	-.147	-.245	-1.143	-.087	.047	.179	.245	.608
7	-.231	.028	.248	-.014	-.172	.189	.276	-.689
8	-.214	.083	.087	.010	-.200	-.320	.317	-.762
9	.000	.117	.242	.019	-.536	-.343	-.462	-1.140
10	.035	-.152	-.043	-.010	-.771	-.410	-.482	-1.677
11	.051	-.219	-.234	-.060	-.676	-.819	-.567	-1.663
12	.047	-.172	-.236	-.349	-.664	-1.102	-.823	-1.543
13	-.100	-.387	-.616	-.461	-.042	-1.118	-1.097	.441
14	-.173	-.360	-.388	-.395	-.028	-1.010	-1.252	.620
15	-.182	-.421	-.700	-.138	.014	.156	-1.241	-2.612
16	-.178	-.451	-.734	-.112	.053	.198	-1.163	-1.144
17	-.251	-.401	-.572	-.081	.103	.245	.303	-2.321
18	-.200	-.358	-.461	-.043	.105	.295	.377	.640
19	-.147	.115	.169	.021	.077	.345	.483	-3.096
20	.055	.176	.196	.052	-.247	.414	.668	-1.600
21	-.084	.184	-.089	-.079	-.247	-.578	-2.161	-3.506
22	.031	-.162	-.180	-.083	-.310	-.711	-.876	-2.453
23	.235	-.243	-.324	-.169	-.644	-1.116	-1.148	.266
24	-1.086	-.211	-.281	-.444	-.939	-1.439	-1.911	-1.407
25	.231	.136	.149	-.624	-.834	-1.470	-1.907	.382
26	-1.173	-.939	-.097	-.545	-.816	-1.376	-1.518	-1.268
				$\delta_e = -30°$				
1	-.164	-.411	-1.314	-.255	-.106	-.004	.060	.202
2	-.180	-.311	-1.136	-.269	-.080	.024	.086	.248
3	-.170	-.397	-2.063	-.289	-.004	.056	.111	.306
4	-.148	-.399	-2.277	-.279	.052	.120	.152	.387
5	-.133	-.401	-1.658	-.230	.072	.144	.181	.485
6	-.143	-.384	-1.737	-.136	.052	.172	.226	.603
7	-.232	.114	.249	-.064	-.116	.184	.269	-.658
8	-.262	.170	.172	.088	-.157	-.314	.312	-.782
9	-.025	.192	.223	.076	-.436	-.354	-.413	-1.138
10	.020	-.082	-.034	.042	-.643	-.438	-.437	-1.511
11	.068	-.102	-.200	-.020	-.592	-.784	-.522	-1.470
12	.102	-.114	-.233	-.263	-.574	-.978	-.739	-1.365
13	.037	-.517	-.719	-.347	-.068	-.988	-.969	.448
14	-.080	-.550	-.472	-.333	-.048	-.908	-1.131	.627
15	-.092	-.642	-.919	-.160	-.010	.164	-1.172	-2.342
16	-.104	-.626	-1.047	-.148	.038	.210	-1.094	-1.120
17	-.260	-.658	-.808	-.114	.088	.252	.287	-2.255
18	-.088	-.622	-.670	-.064	.102	.304	.359	.648
19	-.244	.231	.247	.002	.084	.360	.466	-2.829
20	.135	.274	.263	.044	-.203	.424	.651	-1.609
21	-.203	.231	-.111	-.018	-.205	-.602	-2.035	-3.483
22	.070	-.078	-.081	-.038	-.269	-.768	-.825	-2.185
23	.230	-.145	-.217	-.136	-.546	-1.102	-1.090	.273
24	-1.010	-.149	-.209	-.363	-.815	-1.346	-1.766	-1.234
25	.213	.129	.204	-.505	-.745	-1.360	-1.827	.385
26	-1.094	-.822	-.117	-.467	-.719	-1.274	-1.431	-1.126

TABLE 30 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 9°$; $\alpha = 20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -40°$				
1	-.238	-.311	-.583	-.179	-.073	-.002	.051	.201
2	-.287	-.333	-.372	-.181	-.041	.028	.081	.241
3	-.344	-.475	-.534	-.194	.016	.057	.108	.297
4	-.415	-.685	-.851	-.198	.063	.115	.150	.378
5	-.448	-.625	-1.196	-.177	.081	.144	.179	.464
6	-.434	-.621	-1.166	-.094	.067	.176	.234	.602
7	-.332	.192	.282	-.033	-.061	.186	.262	-.643
8	-.430	.259	.256	.161	-.108	-.279	.313	-.751
9	-.026	.246	.192	.147	-.369	-.312	-.417	-1.090
10	.006	-.058	-.074	.106	-.564	-.356	-.443	-1.466
11	.039	-.072	-.219	.035	-.525	-.711	-.518	-1.446
12	.049	-.076	-.221	-.204	-.511	-.899	-.711	-1.327
13	-.035	-.393	-.509	-.283	-.045	-.925	-.935	.434
14	-.126	-.367	-.288	-.285	-.031	-.842	-1.108	.622
15	-.084	-.457	-.589	-.124	.016	.148	-1.161	-2.317
16	-.114	-.705	-.759	-.106	.057	.184	-1.059	-1.088
17	-.597	-.912	-.650	-.077	.100	.235	.281	-2.187
18	-.090	-.996	-.530	-.041	.110	.292	.356	.637
19	-.473	.333	.274	.020	.094	.340	.465	-2.779
20	.145	.349	.262	.051	-.165	.407	.656	-1.540
21	-.316	.273	-.078	.037	-.179	-.563	-2.112	-3.303
22	.108	-.046	-.090	.014	-.250	-.692	-.817	-2.157
23	.246	-.098	-.164	-.084	-.491	-1.022	-1.059	.271
24	-.923	-.110	-.157	-.306	-.735	-1.275	-1.689	-1.203
25	.226	.126	.157	-.434	-.678	-1.291	-1.872	.375
26	-.982	-.774	-.084	-.411	-.654	-1.200	-1.400	-1.088

TABLE 31

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.401	.523	.356	-.096	-.427	-.640	-.646	-.623
2	.143	.193	.108	-.245	-.596	-.689	-.658	-.615
3	-.103	-.322	-.420	-.406	-.659	-.687	-.652	-.605
4	-.291	-.493	-.562	-.531	-.569	-.656	-.642	-.593
5	-.405	-.438	-.386	-.573	-.517	-.622	-.619	-.587
6	-.452	-.401	-.308	-.445	-.501	-.602	-.607	-.579
7	-.535	-.409	-1.554	-.318	.119	-.583	-.595	.506
8	-.463	-.642	-.734	-.149	.150	.248	-.587	.536
9	-.229	-.585	-.802	-.114	.185	.293	.348	.567
10	-.322	-.603	-.830	-.108	.172	.303	.358	.601
11	-.469	-.662	-1.236	-.088	.119	.317	.397	.621
12	-.512	-.629	-1.012	-.047	.045	.311	.409	.599
13	-.516	.432	.138	.029	-.552	.285	.418	-.611
14	-.500	.157	-.246	.043	-.608	.205	.422	-.597
15	-.483	-.340	-.426	-.257	-.673	-.675	.418	-.599
16	-.479	-.599	-.526	-.414	-.653	-.663	.375	.765
17	-.477	-.420	-.392	-.622	-.585	-.642	-.631	.802
18	-.564	-.358	-.316	-.633	-.554	-.628	-.621	-.625
19	-.308	-.593	-.620	-.520	-.542	-.616	-.613	-.599
20	-.572	-.721	-.638	-.445	.183	-.606	-.609	.903
21	.167	-.550	-.310	.016	.205	.441	-.607	-.626
22	-.463	-.640	-.544	.057	.228	.465	.621	-.587
23	-.579	-.817	-.480	.088	.236	.482	.660	-.449
24	.174	-.892	-.326	.114	.216	.500	.692	.484
25	-.595	-.576	-.544	.120	.152	.514	.715	-.571
26	.331	.167	-.310	.094	.049	.488	-.587	.370
				$\delta_e = 30°$				
1	.392	.481	.278	-.064	-.424	-.669	-.698	-.696
2	.220	.192	.057	-.244	-.624	-.723	-.713	-.690
3	.017	-.308	-.425	-.424	-.700	-.730	-.715	-.679
4	-.193	-.481	-.586	-.551	-.614	-.705	-.706	-.669
5	-.356	-.421	-.383	-.604	-.557	-.684	-.673	-.660
6	-.459	-.365	-.247	-.465	-.546	-.647	-.667	-.650
7	-.551	-.237	-1.981	-.352	.091	-.628	-.656	.497
8	-.455	-.244	-.625	-.186	.122	.241	-.650	.530
9	.036	-.413	-2.713	-.168	.156	.285	.350	.568
10	.078	-.512	-2.939	-.188	.148	.295	.358	.600
11	-.023	-.496	-3.255	-.186	.091	.299	.394	.625
12	-.187	-.485	-2.931	-.133	.017	.301	.411	.598
13	-.333	.379	.123	-.029	-.568	.272	.424	-.673
14	-.424	.131	-.222	-.004	-.629	.177	.423	-.660
15	-.480	-.340	-.427	-.260	-.702	-.709	.421	-.652
16	-.553	-.594	-.517	-.430	-.700	-.703	.371	.776
17	-.472	-.398	-.383	-.652	-.637	-.684	-.671	.805
18	-.470	-.323	-.259	-.680	-.603	-.669	-.662	-.685
19	-.270	-.440	-.651	-.561	-.591	-.659	-.654	-.656
20	-.294	-.494	-.835	-.486	.163	-.649	-.652	.908
21	.199	-.652	-.282	-.010	.186	.441	-.652	-.679
22	-.034	-.737	-.950	.031	.207	.459	.621	-.646
23	-.633	-.688	-.782	.051	.217	.478	.660	-.486
24	.164	-.592	-.496	.082	.202	.497	.700	.488
25	-.650	-.613	-.908	.098	.137	.507	.713	-.644
26	.325	.160	-.289	.068	.030	.486	-.644	.369
				$\delta_e = 20°$				
1	.332	.409	.333	.125	-.093	-.870	-1.056	-1.004
2	.236	.212	.129	-.106	-.682	-1.000	-1.072	-1.000
3	.096	-.268	-.426	-.349	-1.025	-1.050	-1.087	-.971
4	-.115	-.569	-.705	-.583	-.852	-1.057	-1.078	-.939
5	-.315	-.492	-.437	-.780	-.697	-.992	-1.025	-.914
6	-.474	-.361	-.262	-.546	-.668	-.893	-.975	-.893
7	-.597	-.124	-1.181	-.383	.134	-.836	-.922	.521
8	-.420	-.170	-.320	-.072	.165	.277	-.899	.553
9	.113	-.295	-1.507	-.044	.200	.315	.371	.584
10	.109	-.349	-1.657	-.055	.171	.323	.383	.618
11	.013	-.330	-1.848	-.051	.105	.319	.410	.641
12	-.117	-.288	-1.744	-.019	.014	.314	.419	.592
13	-.246	.431	.233	.049	-.439	.289	.425	-.985
14	-.334	.189	-.164	.047	-.720	.182	.423	-.958
15	-.392	-.328	-.420	.042	-.961	-1.040	.408	-.947
16	-.393	-.716	-.615	-.275	-1.062	-1.023	.348	.788
17	-.509	-.477	-.455	-.738	-.917	-.992	-1.008	.809
18	-.355	-.330	-.283	-.939	-.794	-.946	-1.004	-1.002
19	-.198	-.259	-.403	-.715	-.765	-.910	-.981	-.954
20	-.209	-.330	-.509	-.556	.190	-.891	-.971	.918
21	.200	-.434	-.274	.061	.217	.468	-.950	-.992
22	-.012	-.490	-.566	.106	.243	.486	.627	-.929
23	-.839	-.434	-.476	.123	.245	.505	.666	-.630
24	.129	-.344	-.314	.139	.210	.528	.701	.462
25	-.869	-.832	-.538	.144	.124	.522	.689	-.874
26	.330	.145	-.277	.095	-.002	.486	-.930	.347

TABLE 31 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 10°$				
1	.243	.240	.350	.109	-.057	-.611	-1.209	-1.521
2	.165	.113	.166	-.107	-.630	-1.239	-1.411	-1.560
3	.087	-.218	-.337	-.308	-1.218	-1.370	-1.448	-1.516
4	-.060	-.602	-.718	-.556	-.939	-1.319	-1.419	-1.412
5	-.252	-.501	-.570	-.897	-.723	-1.156	-1.315	-1.331
6	-.456	-.357	-.459	-.674	-.685	-.982	-1.223	-1.263
7	-.555	-.019	-.375	-.464	.198	-.930	-1.115	.549
8	-.315	-.053	-.093	.029	.229	.302	-1.076	.580
9	.132	-.117	-.461	.065	.248	.339	.403	.611
10	.105	-.140	-.545	.065	.206	.348	.417	.638
11	.035	-.129	-.741	.067	.132	.342	.446	.650
12	-.045	-.107	-.745	.080	.027	.329	.458	.582
13	-.136	.263	.130	.111	-.210	.304	.462	-1.646
14	-.219	.111	-.171	.080	-.607	.187	.460	-1.619
15	-.262	-.271	-.343	.031	-1.122	-1.525	.444	-1.558
16	-.247	-.780	-.670	-.245	-1.319	-1.498	.366	.811
17	-.548	-.520	-.543	-.739	-.981	-1.430	-1.609	.813
18	-.214	-.400	-.421	-1.073	-.817	-1.333	-1.601	-1.660
19	-.150	-.086	-.164	-.808	-.790	-1.243	-1.546	-1.584
20	-.101	-.111	-.173	-.600	.242	-1.189	-1.460	.934
21	.117	-.160	-.257	.125	.269	.486	-1.417	-1.706
22	.019	-.191	-.274	.165	.294	.508	.663	-1.774
23	-.990	-.168	-.291	.180	.288	.527	.708	-.846
24	.124	-.133	-.246	.188	.244	.541	.740	.426
25	-1.045	-.891	-.177	.165	.156	.537	.689	-1.121
26	.350	.164	-.257	.119	.021	.488	-1.323	.327
				$\delta_e = 0°$				
1	.171	.087	.144	.018	-.073	-.410	-1.096	-1.849
2	.083	-.037	-.138	-.165	-.569	-1.329	-1.639	-2.029
3	.012	-.264	-.463	-.289	-1.481	-1.642	-1.821	-1.973
4	-.091	-.605	-.885	-.523	-1.153	-1.653	-1.819	-1.828
5	-.235	-.554	-.817	-1.037	-.859	-1.395	-1.680	-1.703
6	-.402	-.444	-.658	-.910	-.822	-1.131	-1.534	-1.605
7	-.563	.074	.272	-.611	.263	-1.066	-1.366	.576
8	-.363	.089	.117	.149	.284	.349	-1.298	.605
9	.140	.070	.329	.193	.282	.378	.429	.638
10	.120	.085	.327	.187	.228	.380	.441	.655
11	.058	.074	.210	.194	.127	.368	.472	.661
12	.017	.068	.154	.194	.006	.353	.481	.562
13	-.047	.083	.016	.183	-.178	.306	.483	-2.182
14	-.091	-.091	-.235	.122	-.496	.171	.476	-2.138
15	-.124	-.328	-.385	-.018	-1.261	-1.881	.448	-2.052
16	-.159	-.795	-.747	-.244	-1.627	-1.948	.368	.826
17	-.542	-.624	-.671	-.729	-1.166	-1.861	-2.088	.808
18	-.052	-.504	-.512	-1.279	-.963	-1.701	-2.105	-2.200
19	-.196	.091	.035	-1.045	-.940	-1.549	-2.000	-2.109
20	-.006	.124	.072	-.752	.290	-1.470	-1.873	.934
21	.010	.118	-.255	.196	.315	.520	-1.832	-2.252
22	.068	.105	.047	.246	.330	.534	.686	-2.438
23	-1.144	.103	.004	.255	.315	.547	.741	-1.060
24	.095	.089	-.012	.246	.255	.555	.745	.405
25	-1.208	-1.016	.076	.206	.147	.549	.671	-1.353
26	.344	.161	-.261	.122	-.014	.484	-1.655	.318
				$\delta_e = -10°$				
1	.111	-.053	-.272	-.122	-.187	-.383	-.640	-1.896
2	.035	-.198	-.627	-.349	-.435	-1.124	-1.352	-2.648
3	-.039	-.416	-.925	-.438	-1.736	-1.835	-2.094	-2.673
4	-.154	-.680	-1.315	-.568	-1.606	-2.108	-2.394	-2.404
5	-.264	-.649	-1.026	-1.131	-1.072	-1.756	-2.240	-2.130
6	-.404	-.576	-.937	-1.197	-.988	-1.354	-1.931	-1.974
7	-.633	.176	.665	-.801	.326	-1.259	-1.624	.600
8	-.436	.229	.304	.267	.348	.385	-1.535	.630
9	.170	.239	.792	.311	.326	.418	.461	.650
10	.170	.257	.776	.317	.252	.424	.474	.669
11	.121	.245	.698	.319	.127	.393	.504	.659
12	.088	.204	.617	.309	-.022	.373	.504	.535
13	.043	-.122	-.236	.261	-.280	.324	.506	-3.035
14	.004	-.324	-.369	.155	-.396	.161	.492	-2.967
15	-.010	-.545	-.669	-.133	-1.131	-2.079	.469	-2.803
16	-.082	-.929	-.966	-.359	-2.036	-2.487	.366	.856
17	-.521	-.763	-.849	-.614	-1.527	-2.428	-2.648	.811
18	.098	-.667	-.609	-1.414	-1.157	-2.149	-2.927	-3.069
19	-.268	.241	.282	-1.436	-1.113	-1.855	-2.724	-2.929
20	.117	.320	.349	-.948	.342	-1.747	-2.472	.945
21	-.072	.341	-.282	.283	.366	.550	-2.374	-3.264
22	.156	.329	.351	.323	.378	.564	.713	-3.215
23	-1.350	.316	.254	.337	.350	.572	.754	-1.295
24	.059	.265	.167	.313	.268	.578	.762	.364
25	-1.428	-1.182	.371	.241	.143	.564	.648	-1.610
26	.357	.157	-.288	.135	-.040	.481	-2.020	.283

TABLE 31 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -20°$				
1	.049	-.200	-.996	-.266	-.271	-.443	-.581	-1.226
2	.010	-.329	-1.370	-.544	-.490	-.775	-.893	-2.962
3	-.063	-.555	-1.919	-.659	-1.798	-1.660	-1.917	-3.435
4	-.190	-.820	-1.970	-.754	-1.919	-2.615	-2.813	-3.040
5	-.314	-.894	-1.184	-1.254	-1.231	-2.283	-2.813	-2.547
6	-.488	-.863	-1.099	-1.454	-1.081	-1.611	-2.449	-2.349
7	-1.105	.278	.570	-1.006	.383	-1.443	-1.889	.631
8	-.682	.380	.404	.381	.415	.423	-1.738	.673
9	.217	.408	.695	.433	.374	.451	.493	.687
10	.249	.418	.792	.440	.279	.449	.513	.717
11	.209	.392	.792	.442	.144	.415	.533	.677
12	.180	.312	.701	.405	-.020	.389	.541	.519
13	.140	-.365	-.560	.321	-.350	.334	.535	-3.992
14	.113	-.573	-.604	.181	-.447	.144	.519	-3.928
15	.097	-.831	-1.069	-.252	-.951	-1.779	.471	-3.609
16	-.014	-1.082	-1.366	-.520	-2.239	-2.885	.358	.894
17	-.626	-1.018	-.970	-.694	-1.877	-3.008	-2.654	.812
18	.245	-.992	-.745	-1.438	-1.283	-2.632	-3.674	-4.285
19	-.328	.384	.495	-1.768	-1.225	-2.150	-3.396	-3.918
20	.259	.506	.586	-1.163	.389	-1.982	-2.938	.964
21	-.111	.533	-.335	.365	.419	.581	-2.728	-4.545
22	.279	.522	.590	.405	.417	.595	.742	-3.487
23	-1.520	.482	.436	.413	.381	.599	.783	-1.539
24	.032	.380	.261	.373	.291	.595	.775	.339
25	-1.625	-1.384	.626	.278	.146	.569	.620	-1.840
26	.362	.143	-.339	.145	-.053	.480	-2.332	.271
				$\delta_e = -30°$				
1	-.155	-.388	-1.740	-.378	-.375	-.509	-.605	-1.217
2	-.147	-.398	-2.193	-.678	-.570	-.677	-.798	-2.972
3	-.205	-.670	-2.821	-.799	-1.828	-1.465	-1.737	-3.588
4	-.325	-1.095	-2.042	-.883	-2.172	-2.888	-2.920	-3.189
5	-.456	-1.278	-1.290	-1.362	-1.412	-2.633	-3.058	-2.667
6	-.649	-1.109	-1.223	-1.606	-1.201	-1.806	-2.697	-2.462
7	-1.478	.382	.606	-1.151	.428	-1.571	-2.024	.641
8	-.998	.509	.527	.469	.458	.449	-1.842	.677
9	.237	.545	.769	.515	.398	.485	.519	.691
10	.295	.565	.746	.525	.286	.475	.537	.719
11	.251	.503	.666	.525	.134	.431	.557	.671
12	.241	.390	.569	.479	-.053	.399	.553	.502
13	.223	-.620	-.795	.374	-.454	.335	.545	-4.177
14	.197	-.789	-.823	.201	-.521	.136	.527	-4.124
15	.199	-1.157	-1.441	-.338	-.842	-1.415	.481	-3.809
16	.044	-1.489	-1.600	-.624	-2.357	-2.982	.349	.892
17	-.805	-1.249	-1.022	-.767	-2.211	-3.359	-2.471	.795
18	.376	-1.157	-.803	-1.505	-1.440	-2.970	-3.954	-4.582
19	-.422	.511	.620	-1.920	-1.365	-2.369	-3.663	-4.133
20	.371	.648	.722	-1.306	.428	-2.176	-3.128	.948
21	-.203	.698	-.382	.421	.454	.601	-2.882	-4.805
22	.371	.672	.714	.465	.448	.609	.747	-3.562
23	-1.653	.598	.529	.467	.400	.615	.790	-1.624
24	.006	.453	.318	.417	.288	.605	.780	.321
25	-1.763	-1.493	.755	.302	.130	.579	.613	-1.920
26	.367	.147	-.384	.151	-.089	.473	-2.477	.261
				$\delta_e = -40°$				
1	-.429	-.532	-1.807	-.370	-.345	-.467	-.678	-1.890
2	-.435	-.534	-2.451	-.667	-.554	-1.139	-1.350	-2.986
3	-.396	-.724	-2.316	-.776	-1.893	-1.992	-2.274	-3.080
4	-.417	-1.524	-1.570	-.864	-1.948	-2.471	-2.720	-2.771
5	-.498	-1.196	-1.201	-1.366	-1.347	-2.157	-2.604	-2.424
6	-.717	-1.093	-1.102	-1.502	-1.183	-1.627	-2.304	-2.247
7	-1.520	.446	.697	-1.108	.472	-1.471	-1.891	.649
8	-.990	.607	.619	.561	.486	.484	-1.759	.689
9	.201	.667	.836	.620	.427	.506	.531	.709
10	.291	.673	.783	.634	.312	.498	.549	.721
11	.287	.591	.447	.630	.141	.447	.567	.687
12	.295	.454	.271	.567	-.040	.412	.565	.508
13	.293	-.621	-.832	.429	-.413	.349	.553	-3.528
14	.283	-.762	-.885	.236	-.496	.149	.537	-3.426
15	.280	-1.714	-1.486	-.299	-1.127	-2.275	.487	-3.281
16	.112	-1.502	-1.486	-.575	-2.276	-2.824	.354	.894
17	-1.063	-1.171	-.916	-.803	-1.895	-2.788	-2.936	.809
18	.474	-1.091	-.789	-1.628	-1.373	-2.484	-3.344	-3.608
19	-.492	.617	.711	-1.774	-1.308	-2.118	-3.131	-3.420
20	.461	.778	.797	-1.270	.456	-1.980	-2.817	.958
21	-.476	.821	-.385	.496	.484	.622	-2.670	-3.771
22	.437	.784	.773	.541	.474	.622	.748	-3.657
23	-1.522	.669	.574	.528	.425	.620	.789	-1.498
24	.016	.506	.330	.470	.302	.614	.779	.331
25	-1.610	-1.429	.820	.337	.149	.580	.618	-1.821
26	.354	.151	-.387	.169	-.065	.480	-2.270	.271

TABLE 32

Pressure coefficients on the left side fin. Standard tail configuration.

ψ=21°; α=-10°; δ_r=0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				δ_e= 40°				
1	.149	.302	.210	.073	-.138	-.463	-.653	-.836
2	.139	.326	.158	.008	-.316	-.646	-.782	-.978
3	.067	.045	-.112	-.093	-.528	-.704	-.844	-.996
4	-.052	-.233	-.314	-.208	-.534	-.746	-.863	-.937
5	-.169	-.247	-.246	-.365	-.503	-.730	-.826	-.871
6	-.256	-.221	-.208	-.331	-.485	-.684	-.806	-.816
7	-.343	-.296	-.394	-.282	.035	-.648	-.766	.321
8	-.313	-.283	-.318	-.125	.051	.119	-.727	.364
9	-.210	-.320	-.388	-.101	.104	.159	.188	.412
10	-.264	-.409	-.774	-.103	.118	.185	.196	.473
11	-.292	-.540	-.978	-.095	.108	.193	.238	.547
12	-.306	-.559	-.876	-.077	.073	.223	.261	.610
13	-.333	.277	.110	-.010	-.257	.231	.297	-1.236
14	-.373	.298	-.126	.018	-.358	.211	.317	-1.257
15	-.339	.006	-.156	-.036	-.523	-.887	.345	-1.265
16	-.387	-.306	-.302	-.115	-.631	-.918	.350	.574
17	-.272	-.243	-.266	-.321	-.619	-.903	-1.051	.703
18	-.383	-.204	-.222	-.448	-.585	-.863	-1.115	-1.366
19	-.048	-.265	-.356	-.442	-.572	-.815	-1.048	-1.416
20	-.317	-.255	-.378	-.411	.067	-.767	-.988	.762
21	.202	-.314	-.212	-.032	.083	.276	-1.071	-2.024
22	-.302	-.370	-.494	.002	.122	.300	.428	-.954
23	-.661	-.818	-.418	.026	.147	.344	.489	-.531
24	.230	-.887	-.264	.050	.161	.294	.564	.521
25	-.696	-.638	-.364	.085	.139	.429	.689	-.743
26	.286	.158	-.220	.081	.079	.461	-.901	.392
				δ_e= 30°				
1	.139	.228	.173	.026	-.212	-.450	-.652	-.905
2	.136	.200	.143	-.044	-.370	-.663	-.779	-1.046
3	.077	-.020	-.078	-.143	-.533	-.732	-.839	-1.061
4	-.006	-.226	-.294	-.260	-.547	-.777	-.863	-1.006
5	-.094	-.230	-.245	-.392	-.517	-.757	-.835	-.925
6	-.181	-.220	-.199	-.368	-.507	-.718	-.827	-.865
7	-.269	-.257	-1.085	-.334	.010	-.680	-.783	.303
8	-.261	-.338	-.447	-.173	.030	.091	-.744	.339
9	-.083	-.440	-1.592	-.155	.083	.132	.179	.396
10	-.145	-.436	-2.356	-.169	.105	.158	.171	.461
11	-.214	-.413	-3.089	-.173	.097	.185	.233	.539
12	-.255	-.409	-2.944	-.153	.057	.211	.250	.606
13	-.226	.212	.139	-.068	-.335	.219	.288	-1.293
14	-.236	.181	-.103	-.034	-.422	.189	.310	-1.317
15	-.306	-.057	-.097	-.080	-.554	-.909	.342	-1.311
16	-.375	-.289	-.276	-.171	-.630	-.961	.344	.574
17	-.214	-.242	-.272	-.368	-.622	-.945	-1.058	.697
18	-.334	-.224	-.221	-.475	-.594	-.899	-1.121	-1.426
19	-.010	-.354	-.467	-.473	-.582	-.842	-1.056	-1.479
20	-.358	-.391	-.545	-.451	.050	-.801	-.974	.768
21	.163	-.470	-.209	-.072	.065	.258	-1.074	-2.014
22	-.240	-.599	-.815	-.038	.105	.294	.414	-1.008
23	-.695	-.627	-.759	-.020	.127	.333	.477	-.574
24	.220	-.583	-.535	.010	.145	.377	.569	.511
25	-.731	-.627	-.656	.044	.127	.424	.692	-.792
26	.277	.151	-.211	.048	.063	.454	-.915	.374
				δ_e= 20°				
1	.150	.174	.177	.028	-.162	-.449	-.641	-.945
2	.164	.188	.191	-.032	-.353	-.712	-.817	-1.142
3	.121	.004	-.020	-.134	-.625	-.809	-.933	-1.165
4	.018	-.246	-.327	-.261	-.621	-.875	-.986	-1.093
5	-.099	-.250	-.293	-.443	-.579	-.847	-.958	-1.020
6	-.208	-.195	-.223	-.433	-.565	-.789	-.933	-.961
7	-.279	-.107	-1.120	-.383	.018	-.748	-.881	.319
8	-.219	-.133	-.267	-.166	.042	.125	-.835	.354
9	.075	-.225	-1.452	-.142	.092	.161	.198	.404
10	.067	-.285	-1.625	-.158	.112	.179	.202	.472
11	.032	-.262	-1.924	-.148	.094	.199	.250	.543
12	-.043	-.238	-1.855	-.106	.048	.225	.272	.608
13	-.130	.189	.124	-.026	-.281	.233	.300	-1.378
14	-.198	.209	-.090	-.002	-.375	.201	.323	-1.394
15	-.255	-.004	-.092	-.058	-.601	-1.006	.349	-1.348
16	-.271	-.314	-.335	-.146	-.737	-1.076	.349	.593
17	-.247	-.262	-.327	-.375	-.709	-1.066	-1.167	.736
18	-.251	-.209	-.253	-.539	-.665	-1.016	-1.286	-1.632
19	-.018	-.273	-.406	-.537	-.645	-.958	-1.224	-2.396
20	-.132	-.309	-.524	-.495	.058	-.907	-1.155	.780
21	.150	-.395	-.207	-.054	.076	.288	-1.234	-2.213
22	-.006	-.438	-.564	-.020	.112	.314	.435	-1.118
23	-.783	-.418	-.478	.006	.140	.352	.498	-.622
24	.225	-.322	-.331	.042	.154	.394	.587	.520
25	-.820	-.688	-.542	.072	.130	.437	.706	-.854
26	.298	.160	-.205	.066	.062	.465	-1.044	.384

TABLE 32 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 10°$				
1	.112	.084	.203	-.008	-.128	-.389	-.615	-1.041
2	.124	.084	.227	-.034	-.310	-.708	-.848	-1.372
3	.088	-.090	-.014	-.126	-.781	-.875	-1.068	-1.449
4	-.010	-.417	-.443	-.284	-.756	-1.059	-1.200	-1.360
5	-.148	-.345	-.416	-.580	-.663	-1.018	-1.188	-1.266
6	-.298	-.285	-.365	-.542	-.640	-.935	-1.162	-1.189
7	-.320	-.030	-.434	-.462	.072	-.885	-1.088	.352
8	-.210	-.084	-.107	-.050	.097	.128	-1.036	.388
9	.082	-.150	-.539	-.034	.138	.172	.208	.441
10	.066	-.162	-.521	-.042	.140	.180	.218	.506
11	.028	-.140	-.793	-.034	.112	.219	.263	.573
12	-.030	-.104	-.781	-.012	.054	.229	.287	.624
13	-.106	.098	.043	.044	-.233	.231	.319	-1.646
14	-.162	.104	-.111	.042	-.314	.200	.333	-1.738
15	-.218	-.094	-.154	-.070	-.636	-1.079	.357	-1.612
16	-.202	-.513	-.416	-.120	-.899	-1.259	.361	.620
17	-.380	-.373	-.379	-.394	-.853	-1.292	-1.331	.734
18	-.196	-.319	-.332	-.700	-.773	-1.239	-1.647	-2.000
19	-.072	-.114	-.168	-.654	-.756	-1.154	-1.577	-3.439
20	-.098	-.164	-.215	-.580	.105	-1.103	-1.457	.797
21	.072	-.214	-.182	.020	.116	.289	-1.597	-2.980
22	-.004	-.234	-.252	.048	.153	.318	.447	-1.380
23	-.944	-.190	-.313	.070	.171	.362	.513	-.762
24	.192	-.142	-.250	.092	.171	.397	.603	.522
25	-.996	-.834	-.205	.112	.132	.439	.709	-1.041
26	.294	.146	-.188	.084	.048	.457	-1.317	.390
				$\delta_e = 0°$				
1	.085	.012	-.002	-.085	-.134	-.307	-.495	-.837
2	.085	-.008	-.051	-.080	-.179	-.490	-.560	-1.410
3	.057	-.135	-.253	-.105	-1.103	-.958	-.935	-2.050
4	-.018	-.549	-.818	-.187	-1.117	-1.554	-1.545	-2.018
5	-.145	-.541	-.790	-.785	-.858	-1.426	-1.737	-1.805
6	-.337	-.444	-.707	-.924	-.821	-1.209	-1.657	-1.680
7	-.440	.020	.228	-.634	.132	-1.127	-1.440	.362
8	-.335	.010	.032	.046	.146	.179	-1.341	.402
9	.077	.012	.240	.074	.177	.215	.251	.451
10	.065	.030	.269	.082	.165	.231	.263	.517
11	.051	.038	.180	.095	.122	.251	.299	.584
12	.034	.050	.160	.111	.041	.263	.325	.630
13	-.010	-.004	-.063	.133	-.202	.253	.345	-1.857
14	-.063	-.032	-.178	.101	-.208	.201	.372	-2.805
15	-.131	-.150	-.174	-.099	-.565	-.956	.386	-2.531
16	-.149	-.701	-.618	-.117	-1.309	-1.598	.374	.638
17	-.511	-.590	-.634	-.237	-1.153	-1.853	-1.206	.753
18	-.065	-.503	-.440	-.934	-.981	-1.741	-2.174	-2.837
19	-.113	.024	-.012	-1.054	-.955	-1.560	-2.382	-4.060
20	-.012	.038	.010	-.773	.144	-1.466	-2.113	.813
21	.034	.048	-.200	.093	.161	.337	-2.182	-4.759
22	.022	.040	-.006	.121	.196	.365	.487	-2.066
23	-1.172	.061	-.048	.149	.204	.406	.552	-1.070
24	.180	.077	-.028		.196	.438	.634	.509
25	-1.234	-1.067	.028	.151	.140	.474	.721	-1.370
26	.305	.150	-.198	.113	.035	.482	-1.800	.376
				$\delta_e = -10°$				
1	.060	-.082	-.303	-.192	-.222	-.351	-.477	-.725
2	.030	-.090	-.496	-.208	-.283	-.359	-.524	-.927
3	.020	-.259	-1.203	-.253	-.596	-.343	-.519	-1.158
4	-.042	-.667	-1.703	-.295	-1.980	-1.775	-.579	-3.016
5	-.125	-.873	-1.665	-.731	-1.277	-2.353	-1.650	-3.044
6	-.294	-.765	-1.325	-1.425	-1.044	-1.900	-2.755	-2.495
7	-.538	.100	.582	-.914	.190	-1.446	-2.258	.398
8	-.405	.133	.179	.168	.202	.227	-1.779	.440
9	.091	.175	.616	.202	.220	.261	.288	.493
10	.083	.223	.659	.214	.200	.277	.295	.554
11	.069	.233	.757	.228	.137	.293	.333	.620
12	.075	.219	.727	.234	.030	.293	.358	.644
13	.063	-.147	-.273	.220	-.281	.279	.380	-1.523
14	.044	-.183	-.269	.154	-.321	.201	.397	-2.483
15	.004	-.392	-.524	-.176	-.299	-.631	.413	-5.107
16	-.044	-.924	-.936	-.218	-.760	-.861	.384	.667
17	-.508	-1.090	-1.261	-.275	-2.242	-1.773	-1.006	.762
18	.085	-.936	-.944	-.764	-1.350	-2.749	-1.497	-2.778
19	-.127	.183	.231	-1.665	-1.216	-2.398	-2.757	-7.586
20	.085	.235	.283	-1.054	.184	-1.982	-3.515	.826
21	-.014	.279	-.203	.178	.200	.375	-3.115	-5.143
22	.079	.289	.329	.208	.234	.400	.517	-3.651
23	-1.573	.311	.209	.226	.232	.436	.577	-1.537
24	.159	.287	.145	.226	.212	.472	.663	.513
25	-1.847	-1.410	.323	.194	.145	.504	.726	-1.836
26	.317	.165	-.205	.136	.022	.504	-2.546	.384

[redacted]

TABLE 32 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -20°$				
1	.014	-.177	-.765	-.297	-.283	-.391	-.522	-.741
2	-.054	-.185	-1.054	-.345	-.350	-.447	-.570	-.936
3	-.086	-.330	-2.040	-.399	-.665	-.365	-.562	-1.072
4	-.155	-.771	-2.809	-.449	-2.201	-1.361	-.528	-3.088
5	-.229	-1.034	-2.157	-.816	-1.465	-2.675	-1.367	-3.454
6	-.424	-1.040	-2.147	-1.667	-1.173	-2.561	-2.982	-2.721
7	-.745	.195	.505	-1.148	.252	-1.661	-2.745	.430
8	-.645	.262	.258	.305	.268	.259	-2.004	.462
9	.114	.322	.636	.341	.272	.283	.317	.516
10	.120	.368	.698	.349	.228	.301	.319	.580
11	.098	.380	.841	.355	.144	.317	.357	.645
12	.096	.340	.823	.345	.024	.313	.380	.645
13	.086	-.318	-.515	.305	-.333	.297	.400	-1.568
14	.074	-.312	-.457	.192	-.372	.204	.418	-2.474
15	.058	-.579	-.909	-.251	-.350	-.689	.424	-5.492
16	-.020	-1.191	-1.461	-.307	-.789	-.699	.388	.681
17	-.536	-1.330	-1.638	-.377	-2.535	-1.098	-1.040	.771
18	.189	-1.254	-1.427	-.743	-1.512	-3.114	-1.528	-2.867
19	-.211	.330	.443	-1.918	-1.333	-3.056	-2.498	-7.944
20	.173	.404	.505	-1.275	.252	-2.301	-4.068	.829
21	-.096	.457	-.252	.265	.260	.391	-3.408	-5.175
22	.147	.475	.555	.301	.283	.431	.538	-4.022
23	-1.773	.477	.412	.315	.276	.461	.600	-1.677
24	.147	.419	.245	.301	.244	.495	.677	.514
25	-2.159	-1.547	.549	.253	.161	.523	.739	-2.004
26	.325	.165	-.252	.162	.012	.515	-2.799	.390
				$\delta_e = -30°$				
1	-.061	-.331	-1.214	-.397	-.324	-.438	-.558	-.780
2	-.186	-.351	-1.499	-.451	-.387	-.462	-.600	-.965
3	-.232	-.558	-2.764	-.516	-.791	-.385	-.588	-1.339
4	-.376	-.930	-3.170	-.559	-2.198	-1.825	-.642	-3.400
5	-.438	-1.275	-1.677	-.881	-1.455	-2.714	-1.570	-3.216
6	-.636	-1.199	-1.693	-1.702	-1.188	-2.304	-3.004	-2.671
7	-1.071	.305	.578	-1.227	.324	-1.657	-2.693	.453
8	-.812	.384	.394	.395	.330	.288	-2.012	.494
9	.168	.450	.697	.437	.318	.317	.339	.545
10	.162	.490	.693	.449	.259	.331	.343	.602
11	.143	.488	.673	.464	.154	.329	.378	.659
12	.137	.426	.655	.433	.042	.327	.398	.653
13	.131	-.546	-.719	.358	-.360	.304	.418	-1.643
14	.123	-.526	-.614	.223	-.395	.202	.424	-2.943
15	.145	-.775	-1.196	-.326	-.360	-.712	.432	-5.186
16	.044	-1.416	-1.642	-.385	-.990	-.825	.390	.718
17	-.719	-1.532	-1.396	-.451	-2.468	-1.752	-1.091	.794
18	.297	-1.506	-1.279	-.794	-1.498	-3.153	-1.642	-3.084
19	-.434	.470	.580	-1.976	-1.350	-2.800	-2.739	-7.788
20	.263	.568	.657	-1.360	.300	-2.260	-4.008	.863
21	-.246	.624	-.287	.334	.308	.409	-3.370	-5.602
22	.236	.641	.687	.360	.326	.435	.549	-3.800
23	-1.671	.566	.543	.374	.316	.470	.618	-1.675
24	.149	.516	.335	.348	.263	.500	.685	.522
25	-1.897	-1.562	.693	.283	.170	.528	.758	-1.984
26	.352	.187	-.289	.176	.024	.512	-2.806	.396
				$\delta_e = -40°$				
1	-.440	-.569	-.919	-.376	-.301	-.417	-.562	-.882
2	-.516	-.608	-1.194	-.392	-.281	-.413	-.572	-1.584
3	-.600	-.942	-1.230	-.416	-1.327	-.886	-1.115	-2.516
4	-.723	-.984	-1.340	-.458	-1.489	-1.946	-1.921	-2.374
5	-.771	-1.022	-1.124	-.984	-1.100	-1.822	-2.085	-2.096
6	-.805	-.998	-1.061	-1.239	-1.034	-1.447	-1.907	-1.954
7	-.964	.404	.648	-.962	.361	-1.341	-1.614	.462
8	-.825	.503	.493	.492	.375	.311	-1.511	.496
9	.112	.577	.770	.536	.355	.343	.364	.544
10	.155	.636	.754	.550	.283	.353	.366	.600
11	.141	.618	.470	.554	.196	.351	.400	.648
12	.147	.537	.328	.524	.076	.347	.420	.652
13	.147	-.567	-.721	.430	-.333	.331	.436	-2.126
14	.165	-.742	-.627	.289	-.313	.232	.446	-3.248
15	.219	-1.020	-.994	-.299	-.555	-.814	.446	-2.950
16	.116	-1.145	-1.183	-.321	-1.611	-1.689	.406	.720
17	-.894	-1.072	-.851	-.394	-1.471	-2.303	-1.339	.788
18	.398	-1.036	-.717	-1.122	-1.206	-2.158	-2.673	-3.476
19	-.835	.622	.656	-1.382	-1.168	-1.868	-2.723	-4.484
20	.335	.722	.715	-1.038	.327	-1.731	-2.372	.866
21	-.641	.767	-.305	.400	.339	.425	-2.392	-5.486
22	.285	.787	.731	.422	.353	.451	.570	-2.442
23	-1.378	.724	.609	.430	.333	.481	.624	-1.268
24	.173	.624	.417	.394	.283	.507	.693	.524
25	-1.468	-1.268	.723	.325	.200	.541	.745	-1.564
26	.353	.211	-.308	.223	.042	.521	-2.006	.404

TABLE 33

Pressure coefficients on the left side fin. Standard tail configuration.

ψ=21°; α= 0°; δ_r=0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				δ_e= 40°				
1	.019	.270	.353	.324	.176	.106	.058	-.014
2	.062	.334	.431	.359	.226	.142	.117	.122
3	.055	.432	.565	.421	.207	.136	.131	.012
4	.090	.359	.406	.282	-.011	.027	.042	-.071
5	.166	.106	.141	.154	-.153	-.079	-.073	-.241
6	.154	.141	.116	-.114	-.364	-.478	-.392	-.670
7	.002	-.266	-.492	-.427	-.469	-.543	-.529	-.367
8	-.013	-.311	-.313	-.207	-.276	-.267	-.462	-.178
9	-.211	-.417	-.500	-.264	-.180	-.230	-.175	-.102
10	-.286	-.525	-.893	-.371	-.322	-.351	-.312	-.201
11	-.345	-.558	-1.263	-.641	-.519	-.562	-.462	-.282
12	-.384	-.612	-.668	-.342	-.228	-.428	-.248	-.158
13	-.412	.417	.307	.098	.115	.142	.148	-.002
14	-.443	.504	.105	.019	.008	.146	.142	-.212
15	-.358	.635	.414	.137	.046	.098	.140	-.355
16	-.542	.471	.271	.158	.021	.109	.173	.183
17	.194	.141	.107	.069	-.312	-.257	-.279	-.008
18	-.495	.147	.073	.062	-.261	-.217	-.290	-.421
19	.222	-.253	-.565	-.465	-.672	-.564	-.612	-.915
20	-.411	-.293	-.445	-.432	-.368	-.839	-.908	-.388
21	.141	-.409	-.116	-.124	-.102	-.094	-.367	-.290
22	-.305	-.514	-.586	-.319	-.370	-.271	-.200	-1.201
23	-.879	-.840	-.586	-.247	-.157	-.179	-.038	-.537
24	.254	-.975	-.296	-.124	-.048	-.121	.048	-.008
25	-1.121	-.716	-.344	-.062	-.040	-.142	.138	-.490
26	.196	.124	-.120	.058	.111	.357	-2.050	.365
				δ_e= 30°				
1	.181	.242	.287	.259	.143	.093	.035	-.056
2	.245	.251	.237	.232	.198	.136	.109	.073
3	.144	.151	.134	.143	.128	.084	.136	.002
4	.029	-.002	-.025	.029	.061	.004	-.002	-.118
5	-.064	-.116	-.165	-.087	-.107	-.113	-.076	-.279
6	-.309	-.311	-.377	-.321	-.303	-.302	-.386	-.642
7	-.656	-.760	-.814	-.673	-.695	-.722	-.823	-.644
8	-.290	-.362	-.351	-.344	-.363	-.335	-.368	-.239
9	-.352	-.404	-.396	-.366	-.349	-.364	-.419	-.297
10	-.702	-.723	-.722	-.600	-.658	-.681	-.780	-.534
11	-.679	-.752	-.744	-.603	-.695	-.704	-.595	-.445
12	-.726	-.716	-.699	-.553	-.607	-.704	-.651	-.557
13	.078	.151	.120	.062	.111	.113	.111	-.035
14	.109	.162	.146	.095	.109	.140	.152	-.148
15	.045	.116	.105	.103	.095	.107	.135	-.281
16	.004	.066	.039	.068	.111	.103	.119	.118
17	-.173	-.232	-.256	-.168	-.198	-.198	-.324	-.102
18	-.302	-.294	-.330	-.261	-.302	-.278	-.337	-.455
19	-.479	-.524	-.579	-.503	-.469	-.486	-.643	-.890
20	-.704	-.679	-.699	-.634	-.590	-.663	-.906	-.443
21	-.167	-.207	-.177	-.193	-.158	-.165	-.275	-.329
22	-.432	-.474	-.447	-.358	-.426	-.399	-.329	-1.089
23	-.494	-.458	-.441	-.362	-.355	-.389	-.220	-.584
24	-.142	-.149	-.155	-.132	-.080	-.136	-.006	-.015
25	-.609	-.458	-.435	-.298	-.282	-.403	-.103	-.638
26	.237	.174	-.122	.106	.156	.284	-1.561	.341
				δ_e= 20°				
1	.070	.092	.255	.098	-.061	-.217	-.333	-.395
2	.251	.163	.335	.193	.079	-.010	-.079	-.096
3	.280	.198	.481	.141	-.053	-.206	-.352	-.324
4	.488	.299	.690	.295	-.139	.087	.008	-.056
5	.136	-.136	.226	.002	-.656	-.417	-.319	-1.085
6	.134	-.028	.103	-.379	-.527	-1.221	-.459	-1.992
7	-.284	-.124	-1.062	-.295	-.118	-.988	-1.341	-.121
8	-.088	-.149	-.290	-.232	-.067	-.037	-1.319	.143
9	-.268	-.208	-1.372	-.273	-.059	-.056	.002	-.039
10	-.066	-.257	-1.481	-.210	.067	.025	.030	.287
11	-.033	-.257	-1.754	-.196	.090	.080	.067	.395
12	-.802	-.316	-1.817	-.483	-.316	-.285	-.180	-.349
13	.109	.196	.193	.029	-.051	.161	.156	-.304
14	-.035	.250	.021	-.004	-.151	.167	.176	-.971
15	-.144	.318	.322	.008	-.175	-.404	.232	-3.559
16	-.006	.224	.216	.045	-.053	-.245	.257	.252
17	.074	-.124	-.131	-.031	-.817	-.472	-.592	.476
18	-.105	-.039	-.055	-.065	-.475	-.282	-.440	-.584
19	-.025	-.358	-.413	-.593	-.692	-1.021	-.927	-2.603
20	-.233	-.308	-.520	-.450	-.143	-1.408	-1.562	.171
21	.045	-.379	-.113	-.136	-.051	.080	-2.364	-2.083
22	-.078	-.424	-.524	-.104	-.004	.118	.194	-3.555
23	-1.019	-.395	-.419	-.086	.029	.167	.275	-1.129
24	.237	-.358	-.273	-.035	.092	.217	.388	.486
25	-1.311	-.892	-.515	.028	.110	.289	.612	-1.339
26	.187	.128	-.121	.059	.092	.369	-2.240	.360

TABLE 33 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 0°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 10°$				
1	.117	.060	.233	-.022	-.120	-.261	-.342	-.451
2	.206	.133	.277	.049	-.130	-.271	-.356	-.492
3	.226	.157	.385	-.014	-.140	-.301	-.374	-.578
4	.348	.255	.488	.065	-.819	-.206	-.374	-.649
5	.074	-.279	-.223	-.067	-.795	-.334	-.339	-.851
6	.029	-.135	-.186	-.649	-.663	-1.381	-.364	-2.149
7	-.477	-.222	-.504	-.416	-.035	-1.037	-1.166	.104
8	-.099	-.085	-.152	-.141	-.020	-.008	-1.464	.141
9	-.144	-.230	-.634	-.110	.047	.029	.045	.200
10	-.163	-.139	-.664	-.110	.094	.051	.049	.288
11	-.039	-.130	-.757	-.098	.118	.098	.086	.390
12	-.284	-.313	-.796	-.076	.100	.114	.125	.531
13	.012	.068	.022	.008	-.191	.155	.160	-.759
14	-.058	.087	-.067	.045	-.199	.177	.198	-1.096
15	-.138	.145	.083	-.073	-.209	-.417	.245	-3.514
16	-.101	.052	-.022	-.082	-.185	-.448	.297	.306
17	-.093	-.311	-.287	-.110	-1.004	-.487	-.556	.480
18	-.126	-.141	-.136	-.129	-.756	-.371	-.605	-.831
19	-.253	-.265	-.198	-.796	-.807	-.919	-.879	-2.675
20	-.138	-.207	-.243	-.616	-.026	-1.764	-1.534	.498
21	-.004	-.209	-.119	-.082	-.006	.092	-2.393	-2.025
22	-.037	-.230	-.196	-.051	.033	.130	.202	-3.675
23	-1.056	-.182	-.247	-.025	.067	.179	.276	-1.200
24	.247	-.120	-.223	.012	.116	.236	.380	.490
25	-1.230	-.948	-.206	.061	.122	.306	.597	-1.449
26	.206	.132	-.126	.082	.102	.369	-2.341	.361
				$\delta_e = 0°$				
1	.100	-.004	-.012	-.102	-.185	-.301	-.382	-.470
2	.088	-.022	-.065	-.095	-.196	-.340	-.394	-.528
3	.060	-.057	-.154	-.106	-.191	-.338	-.416	-.597
4	.024	-.164	-.246	-.122	-.935	-.258	-.410	-.689
5	-.004	-.549	-.915	-.125	-1.083	-.375	-.341	-.990
6	-.086	-.479	-.618	-.921	-.821	-1.605	-.451	-2.178
7	-.378	-.004	.129	-.589	.008	-1.168	-1.473	.129
8	-.287	-.004	.016	-.019	.024	.014	-1.495	.170
9	.084	-.004	.147	.008	.071	.055	.073	.231
10	.068	.014	.180	.014	.114	.076	.075	.301
11	.054	.040	.192	.029	.114	.115	.113	.409
12	.040	.067	.226	.058	.098	.133	.141	.548
13	.014	-.036	-.123	.104	-.240	.176	.174	-.769
14	-.018	-.046	-.141	.110	-.250	.184	.208	-1.110
15	-.129	-.075	-.103	-.131	-.257	-.463	.257	-3.634
16	-.110	-.186	-.147	-.135	-.230	-.490	.305	.327
17	-.225	-.634	-.685	-.158	-1.067	-.514	-.618	.501
18	-.052	-.481	-.459	-.156	-1.151	-.457	-.741	-1.045
19	-.048	.004	-.057	-.944	-.935	-1.176	-.950	-2.841
20	-.012	.000	-.042	-.844	.014	-1.842	-1.893	.513
21	.014	.014	-.139	.002	.028	.113	-2.451	-2.123
22	.012	.008	-.008	.031	.065	.146	.222	-3.673
23	-1.255	.057	-.083	.048	.083	.191	.295	-1.221
24	.257	.093	-.040	.079	.124	.244	.404	.507
25	-1.733	-1.156	-.004	.106	.132	.313	.618	-1.499
26	.229	.149	-.145	.116	.092	.383	-2.323	.376
				$\delta_e = -10°$				
1	.071	-.039	-.383	-.202	-.250	-.352	-.416	-.519
2	.046	-.074	-.496	-.212	-.266	-.387	-.432	-.583
3	.022	-.177	-.959	-.229	-.276	-.375	-.443	-.653
4	-.018	-.359	-.994	-.249	-.958	-.263	-.445	-.690
5	-.071	-1.021	-1.996	-.255	-1.464	-.545	-.357	-1.725
6	-.169	-.866	-1.566	-1.347	-1.008	-1.901	-.496	-2.092
7	-.764	.068	.416	-.961	.072	-1.314	-1.594	.170
8	-.450	.103	.138	.106	.082	.045	-1.645	.207
9	.065	.140	.519	.139	.116	.085	.092	.275
10	.065	.183	.582	.143	.146	.097	.096	.349
11	.065	.204	.706	.169	.150	.140	.135	.444
12	.069	.233	.780	.171	.094	.160	.166	.577
13	.069	-.142	-.309	.188	-.294	.192	.188	-.844
14	.048	-.175	-.243	.173	-.300	.192	.230	-1.236
15	-.063	-.287	-.405	-.210	-.318	-.512	.271	-4.025
16	-.067	-.462	-.496	-.220	-.288	-.538	.328	.372
17	-.335	-1.194	-1.416	-.247	-1.074	-.538	-.645	.550
18	.067	-1.041	-1.058	-.247	-1.474	-.526	-.773	-1.142
19	-.093	.130	.165	-1.182	-1.084	-1.583	-1.004	-3.396
20	.062	.175	.202	-1.182	.060	-1.919	-2.115	.556
21	.004	.223	-.171	.094	.074	.140	-2.578	-2.536
22	.048	.237	.276	.125	.102	.174	.240	-3.649
23	-1.347	.295	.173	.139	.120	.215	.311	-1.226
24	.254	.309	.136	.149	.140	.271	.424	.520
25	-1.897	-1.278	.251	.167	.140	.334	.631	-1.534
26	.228	.163	-.173	.139	.098	.401	-2.439	.388

[redacted]

TABLE 33 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 0°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -20°$				
1	-.032	-.099	-.796	-.298	-.300	-.379	-.448	-.543
2	-.067	-.128	-.980	-.316	-.322	-.411	-.466	-.616
3	-.073	-.251	-1.798	-.351	-.316	-.403	-.479	-.687
4	-.075	-.541	-2.363	-.380	-1.186	-.285	-.466	-.726
5	-.113	-1.687	-3.649	-.376	-1.641	-.510	-.365	-1.719
6	-.232	-1.255	-3.275	-1.633	-1.141	-1.996	-.536	-2.250
7	-1.105	.134	.419	-1.331	.143	-1.381	-1.831	.187
8	-.665	.210	.228	.218	.157	.095	-1.719	.219
9	.050	.284	.581	.245	.176	.121	.124	.280
10	.065	.340	.657	.263	.174	.130	.126	.350
11	.067	.364	.870	.271	.155	.160	.159	.449
12	.101	.368	.928	.275	.097	.182	.183	.577
13	.127	-.237	-.521	.259	-.333	.204	.220	-.882
14	.123	-.239	-.415	.196	-.343	.206	.248	-1.272
15	.040	-.449	-.760	-.276	-.353	-.512	.289	-4.148
16	-.008	-.782	-1.018	-.294	-.300	-.542	.326	.370
17	-.472	-2.113	-2.291	-.329	-1.335	-.538	-.676	.543
18	.183	-1.825	-2.046	-.324	-1.558	-.508	-.815	-1.177
19	-.151	.270	.381	-1.325	-1.190	-1.630	-1.041	-3.502
20	.147	.337	.439	-1.429	.112	-1.949	-2.466	.551
21	-.093	.430	-.214	.159	.130	.166	-2.583	-2.596
22	.085	.449	.531	.178	.149	.198	.263	-3.787
23	-1.474	.467	.395	.200	.159	.241	.334	-1.327
24	.246	.463	.232	.208	.172	.292	.438	.520
25	-2.069	-1.422	.495	.182	.157	.358	.646	-1.673
26	.246	.163	-.212	.157	.091	.409	-2.440	.392
				$\delta_e = -30°$				
1	-.177	-.387	-1.086	-.344	-.324	-.398	-.474	-.559
2	-.229	-.409	-.808	-.362	-.340	-.429	-.490	-.628
3	-.318	-.609	-1.935	-.403	-.334	-.415	-.504	-.698
4	-.354	-.825	-3.395	-.455	-1.155	-.307	-.496	-.690
5	-.419	-1.508	-3.157	-.437	-1.738	-.437	-.371	-2.154
6	-.551	-1.462	-2.963	-1.785	-1.198	-2.100	-.552	-2.204
7	-1.006	.238	.495	-1.488	.196	-1.459	-2.006	.209
8	-.869	.325	.348	.336	.196	.130	-1.794	.247
9	.054	.397	.644	.372	.212	.157	.147	.306
10	.087	.468	.697	.395	.202	.167	.143	.385
11	.082	.492	.763	.397	.173	.193	.177	.482
12	.103	.474	.773	.395	.113	.213	.204	.593
13	.121	-.522	-.636	.350	-.353	.228	.236	-.905
14	.127	-.601	-.464	.261	-.363	.226	.266	-1.328
15	.103	-.728	-.945	-.312	-.369	-.522	.300	-4.362
16	.060	-1.107	-1.364	-.328	-.315	-.545	.335	.407
17	-.688	-2.065	-2.121	-.368	-1.283	-.551	-.710	.577
18	.268	-2.133	-1.945	-.543	-1.678	-.687	-.948	-1.294
19	-.467	.429	.499	-1.458	-1.223	-1.587	-1.077	-3.844
20	.219	.514	.562	-1.601	.151	-2.067	-2.641	.591
21	-.264	.585	-.229	.255	.155	.181	-2.681	-2.832
22	.149	.613	.675	.273	.183	.224	.268	-3.751
23	-1.541	.633	.556	.291	.181	.272	.341	-1.334
24	.252	.583	.348	.279	.186	.315	.450	.542
25	-2.173	-1.575	.628	.247	.175	.366	.643	-1.676
26	.258	.173	-.225	.194	.107	.427	-2.516	.415
				$\delta_e = -40°$				
1	-.395	-.512	-.844	-.345	-.298	-.387	-.443	-.544
2	-.481	-.582	-.746	-.353	-.306	-.413	-.451	-.621
3	-.556	-.693	-.760	-.375	-.265	-.391	-.467	-.688
4	-.633	-.872	-1.071	-.388	-1.178	-.221	-.453	-.670
5	-.699	-.883	-1.085	-.382	-1.420	-.980	-.342	-2.181
6	-.733	-.883	-1.120	-1.171	-1.027	-2.148	-.525	-2.149
7	-.835	.317	.537	-.959	.253	-1.387	-1.801	.222
8	-.752	.416	.429	.441	.259	.178	-1.678	.261
9	.029	.519	.681	.469	.265	.196	.162	.324
10	.053	.591	.693	.484	.250	.206	.158	.395
11	.047	.625	.531	.500	.224	.233	.193	.491
12	.059	.599	.510	.482	.170	.255	.227	.611
13	.077	-.537	-.654	.437	-.327	.269	.246	-.898
14	.108	-.677	-.484	.335	-.337	.255	.275	-1.318
15	.126	-.693	-.774	-.308	-.323	-.536	.314	-4.365
16	.134	-.953	-.909	-.318	-.255	-.559	.346	.411
17	-.790	-1.010	-.801	-.335	-1.379	-.500	-.660	.583
18	.234	-.981	-.728	-.337	-1.356	-.729	-.783	-1.118
19	-.692	.568	.545	-1.265	-1.120	-2.186	-1.016	-3.825
20	.251	.648	.608	-1.169	.197	-1.883	-2.467	.593
21	-.540	.720	-.252	.314	.201	.225	-2.535	-2.802
22	.187	.710	.715	.331	.230	.255	.270	-3.676
23	-1.389	.747	.665	.353	.232	.302	.334	-1.305
24	.271	.704	.524	.331	.224	.356	.443	.554
25	-1.892	-1.379	.673	.308	.215	.409	.641	-1.635
26	.283	.210	-.252	.255	.153	.460	-2.389	.422

TABLE 34

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 10°$; $\delta_f = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	-.055	.216	.404	.313	.089	-.067	-.128	-.165
2	.015	.300	.465	.346	.076	-.084	-.124	-.181
3	.021	.407	.519	.369	.040	-.077	-.128	-.185
4	.051	.460	.581	.376	.028	-.067	-.117	-.187
5	.081	.526	.687	.355	.002	-.063	-.107	-.191
6	.155	.552	.817	.288	-.006	-.056	-.099	-.191
7	.146	-.345	-.515	.228	-.195	-.052	-.090	-.161
8	.125	-.429	-.438	-.297	-.192	-.199	-.096	-.165
9	-.286	-.610	-.667	-.278	-.142	-.180	-.178	-.132
10	-.369	-.803	-1.002	-.293	-.106	-.180	-.184	-.101
11	-.438	-.747	-2.344	-.311	-.061	-.128	-.151	-.049
12	-.498	-1.374	-3.319	-.311	-.051	-.107	-.149	.025
13	-.521	.472	.371	-.282	.002	-.077	-.124	-.235
14	-.523	.520	.144	-.255	-.015	-.044	-.103	-.255
15	-.735	.598	.525	.180	-.023	-.134	-.059	.591
16	-1.447	.657	.571	.181	-.028	-.142	-.011	-.111
17	.246	.708	.656	.176	-.030	-.136	-.193	-.068
18	-.672	.704	.621	.145	-.040	-.132	-.210	-.253
19	.176	-.361	-.456	.097	-.049	-.119	-.231	.605
20	-.580	-.415	-.525	.085	-.186	-.105	-.241	-.025
21	.091	-.598	-.140	-.226	-.180	-.174	.648	.661
22	-.415	-.821	-.740	-.210	-.165	-.151	-.141	.576
23	-.083	-1.189	-.869	-.226	-.133	-.136	-.122	-.150
24	.008	-1.487	-.888	-.199	-.085	-.103	-.092	.043
25	-.070	-.060	-.573	-.164	-.032	-.065	.004	-.115
26	-.051	-.047	-.140	-.133	-.013	-.008	.447	.045
				$\delta_e = 30°$				
1	-.010	.139	.337	.187	.019	-.103	-.162	-.183
2	.085	.206	.405	.222	.008	-.120	-.154	-.201
3	.107	.297	.463	.230	-.008	-.114	-.160	-.201
4	.112	.316	.512	.237	-.018	-.097	-.154	-.205
5	.116	.358	.665	.222	-.039	-.091	-.136	-.208
6	.151	.395	.915	.172	-.066	-.081	-.130	-.212
7	.072	-.287	-1.453	.131	-.216	-.081	-.119	-.170
8	.033	-.378	-.624	-.363	-.212	-.207	-.125	-.172
9	-.217	-.453	-2.021	-.347	-.160	-.192	-.198	-.139
10	-.184	-.408	-2.467	-.365	-.117	-.188	-.194	-.100
11	-.124	-.555	-2.859	-.373	-.072	-.136	-.164	-.048
12	-.089	-.834	-3.510	-.355	-.058	-.103	-.164	.033
13	-.109	.335	.318	-.305	-.054	-.081	-.134	-.249
14	-.165	.393	.083	-.272	-.058	-.048	-.109	-.276
15	-.407	.455	.453	.089	-.056	-.163	-.069	.548
16	-1.149	.480	.494	.098	-.064	-.167	-.022	-.118
17	.167	.511	.508	.095	-.080	-.163	-.215	-.060
18	-.275	.524	.428	.069	-.076	-.155	-.237	-.268
19	.147	-.489	-.640	.035	-.105	-.153	-.255	.568
20	-.227	-.470	-.769	.029	-.206	-.136	-.267	-.019
21	.091	-.617	-.157	-.259	-.189	-.186	.648	.654
22	-.275	-.728	-.975	-.245	-.185	-.151	-.154	.527
23	-.149	-.790	-.855	-.251	-.148	-.126	-.140	-.168
24	.037	-.927	-.773	-.224	-.089	-.103	-.105	.048
25	-.118	-.081	-.828	-.189	-.047	-.056	-.002	-.135
26	-.035	-.052	-.159	-.153	-.019	.004	.425	.042
				$\delta_e = 20°$				
1	-.006	.025	.266	.078	-.037	-.148	-.194	-.200
2	.046	.074	.348	.105	-.039	-.171	-.190	-.216
3	.050	.162	.410	.112	-.052	-.158	-.198	-.224
4	.060	.162	.516	.112	-.049	-.138	-.188	-.222
5	.060	.187	.645	.097	-.070	-.142	-.167	-.222
6	.089	.209	.734	.058	-.091	-.128	-.163	-.232
7	-.002	-.156	-1.002	.025	-.177	-.130	-.159	-.148
8	-.031	-.170	-.313	-.266	-.173	-.187	-.163	-.156
9	-.056	-.246	-1.338	-.248	-.128	-.156	-.163	-.125
10	-.048	-.271	-1.535	-.258	-.089	-.152	-.161	-.080
11	-.046	-.326	-1.850	-.264	-.052	-.107	-.131	-.031
12	-.046	-.392	-2.137	-.242	-.035	-.076	-.131	.043
13	-.056	.168	.195	-.192	-.089	-.054	-.106	-.265
14	-.083	.216	.014	-.151	-.099	-.014	-.079	-.286
15	-.197	.279	.309	.004	-.101	-.198	-.033	.535
16	-.382	.281	.316	.010	-.093	-.200	.019	-.103
17	.067	.294	.299	.006	-.089	-.204	-.248	-.047
18	-.168	.304	.223	-.008	-.093	-.198	-.267	-.280
19	.054	-.337	-.408	-.037	-.115	-.189	-.292	.568
20	-.116	-.306	-.521	-.052	-.173	-.193	-.322	-.010
21	.017	-.400	-.154	-.205	-.167	-.163	.564	.646
22	-.083	-.466	-.570	-.186	-.153	-.126	-.129	.514
23	-.210	-.480	-.484	-.182	-.118	-.111	-.106	-.165
24	.052	-.495	-.398	-.159	-.078	-.078	-.067	.074
25	-.150	-.133	-.531	-.122	-.037	-.033	.040	-.158
26	-.021	-.029	-.154	-.076	-.017	.041	.276	.062

TABLE 34 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 10°$				
1	.045	-.022	.294	-.031	-.098	-.180	-.212	-.228
2	.066	-.002	.313	-.010	-.098	-.195	-.202	-.241
3	.047	.043	.313	-.008	-.102	-.191	-.206	-.249
4	.041	.037	.337	-.006	-.092	-.164	-.200	-.251
5	.039	.037	.466	-.017	-.118	-.160	-.179	-.255
6	.056	.045	.401	-.041	-.197	-.154	-.167	-.280
7	-.027	-.079	-.499	-.093	-.125	-.174	-.160	-.130
8	-.050	-.098	-.153	-.172	-.129	-.143	-.175	-.130
9	.056	-.141	-.630	-.149	-.092	-.127	-.146	-.099
10	.043	-.145	-.718	-.155	-.052	-.119	-.154	-.064
11	.029	-.165	-.886	-.149	-.017	-.072	-.123	-.002
12	.008	-.161	-.992	-.137	-.002	-.047	-.109	.088
13	-.008	.041	-.020	-.093	-.137	-.021	-.091	-.290
14	-.025	.077	-.092	-.060	-.141	.023	-.066	-.313
15	-.083	.106	.072	-.066	-.135	-.223	-.021	.496
16	-.124	.102	.067	-.068	-.131	-.221	.039	-.088
17	-.012	.104	.039	-.060	-.119	-.223	-.245	-.021
18	-.089	.077	-.022	-.075	-.116	-.215	-.263	-.305
19	.000	-.185	-.215	-.085	-.197	-.217	-.290	.537
20	-.060	-.198	-.262	-.114	-.135	-.219	-.319	.008
21	.004	-.232	-.153	-.130	-.129	-.119	.584	.640
22	-.014	-.255	-.245	-.114	-.119	-.086	-.121	.459
23	-.264	-.244	-.182	-.108	-.087	-.074	-.103	-.191
24	.076	-.226	-.115	-.087	-.048	-.037	-.068	.111
25	-.165	-.139	-.233	-.064	-.013	.008	.045	-.191
26		-.018	-.153	-.029	.006	.086	.292	.093
				$\delta_e = 0°$				
1	.067	-.046	-.033	-.123	-.146	-.209	-.248	-.240
2	.064	-.057	-.054	-.107	-.148	-.219	-.246	-.256
3	.037	-.061	-.114	-.109	-.146	-.213	-.244	-.258
4	.019	-.079	-.151	-.117	-.126	-.185	-.232	-.262
5	.008	-.164	-.207	-.121	-.196	-.181	-.220	-.277
6	.008	-.194	-.346	-.133	-.348	-.165	-.208	-.292
7	-.079	-.034	.054	-.367	-.074	-.193	-.198	-.113
8	-.100	-.036	-.023	-.082	-.080	-.134	-.218	-.117
9	.050	-.038	.050	-.051	-.039	-.118	-.129	-.085
10	.052	-.018	.102	-.051	-.014	-.116	-.137	-.046
11	.031	-.020	.019	-.043	.018	-.077	-.097	.010
12	.015	.002	-.010	-.035	.039	-.045	-.089	.110
13	.006	-.067	-.164	-.002	-.179	-.028	-.069	-.308
14	-.006	-.069	-.164	.020	-.181	.012	-.048	-.340
15	-.081	-.073	-.110	-.139	-.177	-.224	-.008	.427
16	-.087	-.097	-.114	-.141	-.175	-.234	.050	-.073
17	-.071	-.164	-.062	-.141	-.156	-.236	-.295	-.004
18	-.042	-.242	-.234	-.148	-.167	-.228	-.323	-.327
19	-.048	-.059	-.091	-.145	-.321	-.220	-.350	.490
20	-.033	-.042	-.077	-.303	-.093	-.217	-.412	.025
21	-.006	-.030	-.158	-.068	-.091	-.134	.428	.596
22	-.015	-.050	-.064	-.051	-.074	-.094	-.099	.383
23	-.333	-.010	-.129	-.047	-.045	-.083	-.079	-.196
24	.081	.022	-.102	-.031	-.018	-.051	-.030	.125
25	-.181	-.218	-.060	-.008	.021	.004	.105	-.215
26	.006	.034	-.160	.025	.045	.069	.046	.102
				$\delta_e = -10°$				
1	.041	-.075	-.397	-.213	-.203	-.236	-.271	-.257
2	.023	-.100	-.513	-.206	-.199	-.246	-.260	-.269
3	.004	-.146	-.667	-.219	-.201	-.238	-.260	-.273
4	-.023	-.210	-.768	-.223	-.166	-.216	-.252	-.280
5	-.055	-.245	-.849	-.229	-.326	-.210	-.227	-.292
6	-.070	-.536	-1.402	-.227	-.476	-.196	-.225	-.323
7	-.398	-.004	.309	-.520	-.021	-.275	-.219	-.097
8	-.586	.027	.060	.026	-.025	-.090	-.236	-.104
9	.023	.062	.408	.049	.006	-.079	-.085	-.075
10	.021	.104	.478	.057	.023	-.073	-.099	-.029
11	.016	.119	.667	.057	.045	-.035	-.064	.021
12	.021	.158	.741	.065	.060	-.008	-.062	.122
13	.027	-.173	-.346	.073	-.226	.016	-.041	-.315
14	.029	-.197	-.263	.079	-.230	.055	-.012	-.356
15	-.090	-.247	-.373	-.198	-.216	-.251	.027	.416
16	-.078	-.293	-.408	-.198	-.209	-.259	.087	-.064
17	-.166	-.335	-.356	-.204	-.193	-.253	-.295	.002
18	.021	-.701	-.801	-.208	-.250	-.253	-.320	-.338
19	-.092	.062	.110	-.194	-.433	-.251	-.360	.474
20	.010	.108	.143	-.358	-.051	-.259	-.422	.025
21	-.027	.145	-.197	-.002	-.055	-.096	.382	.588
22	.000	.141	.195	.014	-.047	-.063	-.074	.346
23	-.713	.189	.128	.018	-.019	-.047	-.048	-.230
24	.133	.224	.091	.024	.016	-.012	.000	.139
25	-.242	-.183	.166	.038	.043	.033	.138	-.244
26	.041	.029	-.191	.053	.058	.106	-.047	.120

TABLE 34 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -20°$				
1	-.048	-.136	-.824	-.287	-.253	-.273	-.288	-.283
2	-.050	-.148	-1.060	-.298	-.257	-.283	-.278	-.296
3	-.050	-.237	-1.541	-.322	-.251	-.275	-.280	-.300
4	-.060	-.342	-1.614	-.337	-.213	-.244	-.270	-.310
5	-.092	-.434	-1.703	-.347	-.447	-.240	-.247	-.331
6	-.125	-1.967	-2.975	-.312	-.593	-.222	-.243	-.371
7	-.416	.062	.335	-.887	.038	-.361	-.239	-.065
8	-1.511	.128	.161	.148	.027	-.060	-.250	-.062
9	.015	.195	.490	.183	.038	-.051	-.070	-.035
10	.035	.265	.566	.191	.052	-.051	-.084	.008
11	.044	.298	.903	.197	.079	-.021	-.047	.069
12	.062	.335	1.023	.191	.086	.016	-.039	.177
13	.081	-.282	-.545	.185	-.269	.025	-.023	-.354
14	.094	-.274	-.421	.179	-.267	.068	.000	-.406
15	.013	-.393	-.686	-.261	-.251	-.283	.035	.288
16	-.008	-.504	-.831	-.261	-.251	-.285	.096	-.023
17	-.245	-.609	-.680	-.275	-.225	-.279	-.311	.054
18	.139	-1.798	-1.597	-.275	-.290	-.279	-.333	-.377
19	-.137	.193	.300	-.234	-.536	-.271	-.378	.388
20	.102	.270	.362	-.612	-.010	-.279	-.438	.073
21	-.073	.339	-.219	.084	-.008	-.076	.376	.523
22	.044	.362	.461	.097	-.006	-.047	-.063	.208
23	-.686	.416	.382	.105	.013	-.033	-.041	-.242
24	.148	.451	.279	.101	.035	.002	.006	.194
25	-.231	-.304	.417	.094	.056	.045	.139	-.288
26	.062	.056	-.215	.113	.073	.119	-.082	.165
				$\delta_e = -30°$				
1	-.152	-.322	-.990	-.332	-.282	-.291	-.314	-.309
2	-.225	-.378	-.723	-.350	-.282	-.303	-.306	-.319
3	-.229	-.476	-1.445	-.377	-.282	-.291	-.304	-.333
4	-.230	-.549	-2.111	-.408	-.229	-.257	-.294	-.344
5	-.223	-.737	-2.729	-.434	-.632	-.251	-.278	-.378
6	-.234	-2.831	-4.947	-.371	-.716	-.232	-.264	-.432
7	-.787	.161	.415	-1.270	.114	-.469	-.260	-.043
8	-1.617	.235	.259	.264	.108	-.014	-.274	-.041
9	.010	.331	.555	.291	.106	-.008	-.046	-.012
10	.041	.414	.609	.309	.106	-.004	-.056	.043
11	.061	.451	.820	.316	.141	.016	-.024	.119
12	.094	.480	.909	.303	.131	.038	-.026	.219
13	.135	-.504	-.628	.279	-.290	.057	-.004	-.384
14	.148	-.549	-.470	.223	-.282	.093	.018	-.458
15	.084	-.641	-.875	-.293	-.274	-.293	.068	.155
16	.070	-.788	-1.125	-.305	-.260	-.295	.119	.008
17	-.400	-.975	-.933	-.318	-.229	-.297	-.328	.100
18	.242	-2.843	-2.581	-.328	-.427	-.289	-.360	-.425
19	-.340	.341	.425	-.275	-.630	-.301	-.402	.288
20	.172	.433	.502	-.840	.055	-.303	-.481	.112
21	-.289	.502	-.239	.168	.059	-.044	.286	.431
22	.094	.539	.599	.176	.047	-.022	-.052	.031
23	-.758	.590	.555	.176	.065	-.002	-.020	-.282
24	.146	.608	.372	.168	.090	.028	.020	.235
25	-.250	-.380	.555	.154	.104	.075	.167	-.356
26	.072	.078	-.245	.143	.110	.154	-.235	.204
				$\delta_e = -40°$				
1	-.307	-.381	-.568	-.318	-.278	-.288	-.296	-.282
2	-.421	-.451	-.483	-.329	-.278	-.300	-.280	-.294
3	-.523	-.615	-.749	-.361	-.274	-.285	-.288	-.307
4	-.605	-1.195	-1.198	-.388	-.211	-.251	-.280	-.317
5	-.630	-1.148	-1.094	-.404	-.761	-.250	-.259	-.350
6	-.706	-1.119	-.963	-.288	-.751	-.220	-.249	-.401
7	-1.155	.247	.462	-1.284	.167	-.559	-.251	-.019
8	-.945	.346	.358	.375	.155	.025	-.253	-.018
9	-.029	.461	.587	.406	.155	.025	-.004	.012
10	.004	.535	.664	.420	.143	.018	-.024	.060
11	.014	.564	.583	.435	.151	.043	.010	.144
12	.039	.584	.758	.412	.159	.068	.016	.232
13	.090	-.356	-.564	.380	-.288	.082	.029	-.362
14	.102	-.428	-.428	.329	-.286	.117	.059	-.434
15	.067	-.628	-.749	-.284	-.280	-.285	.094	.193
16	.070	-1.381	-.939	-.300	-.270	-.288	.153	.019
17	-.865	-1.191	-.546	-.316	-.233	-.290	-.316	.101
18	.299	-1.130	-.758	-.314	-.563	-.283	-.343	-.393
19	-.656	.510	.462	-.231	-.660	-.285	-.392	.323
20	.219	.574	.534	-.953	.091	-.302	-.478	.123
21	-.481	.642	-.248	.241	.091	-.027	.227	.471
22	.123	.706	.627	.259	.076	-.006	-.020	.066
23	-.826	.741	.668	.253	.089	.014	-.002	-.259
24	.184	.728	.597	.227	.113	.041	.057	.245
25	-.237	-.500	.574	.224	.117	.088	.198	-.315
26	.114	.115	-.251	.202	.133	.162	-.318	.206

TABLE 35

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	-.010	.257	.491	.381	.193	.088	.069	.116
2	.078	.337	.553	.416	.198	.088	.080	.139
3	.082	.446	.639	.433	.210	.107	.101	.180
4	.100	.510	.682	.447	.222	.148	.124	.246
5	.127	.598	.779	.449	.231	.169	.145	.338
6	.184	.619	.862	.433	.222	.211	.190	.511
7	.143	-.427	-.969	.396	-.276	.264	.238	-.369
8	.119	-.510	-.571	-.353	-.314	-.320	.307	-.420
9	-.331	-.791	-1.017	-.355	-.333	-.345	-.328	-.464
10	-.380	-1.056	-1.905	-.379	-.306	-.364	-.349	-.503
11	-.481	-1.226	-1.532	-.408	-1.557	-.356	-.364	-.605
12	-.564	-1.253	-1.340	-.388	-1.125	-.351	-.385	-.865
13	-.589	.523	.468	-.878	.127	-.322	-.394	.228
14	-.663	.584	.167	-1.664	.129	-1.216	-.429	.395
15	-1.295	.655	.637	.262	.141	.096	-.404	-.458
16	.299	.732	.695	.280	.156	.119	-.737	-.559
17	-.879	.762	.748	.289	.193	.153	.122	-.750
18	.231	.757	.699	.285	.210	.211	.179	.375
19	-.712	-.498	-.577	.272	.220	.278	.259	-.393
20	.147	-.640	-.645	.285	-.285	.360	.476	-.694
21	-.464	-.791	-.161	-.278	-.299	-.408	-.966	-.132
22	.331	-1.259	-1.008	-.291	-.329	-.421	-.453	-.590
23	-1.286	-1.320	-1.212	-.334	-.337	-.452	-.520	.255
24	.249	-1.284	-1.169	-.322	-.252	-.475	-.608	-.896
25	-.448	.220	-.742	-.491	-1.414	-.510	-.884	.398
26		-1.314	-.167	-1.683	-1.148	-.559	-.392	-1.588
				$\delta_e = 30°$				
1	.025	.170	.420	.256	.143	.048	.043	.091
2	.095	.242	.492	.289	.150	.050	.060	.115
3	.113	.344	.561	.306	.170	.071	.076	.152
4	.134	.393	.630	.318	.195	.107	.101	.230
5	.151	.474	.875	.328	.208	.142	.130	.315
6	.179	.536	1.015	.322	.210	.176	.177	.490
7	.107	-.263	-1.040	.293	-.258	.232	.225	-.393
8	.142	-.360	-.489	-.335	-.301	-.307	.301	-.444
9	-.124	-.408	-1.954	-.347	-.326	-.335	-.322	-.482
10	-.179	-.495	-2.636	-.382	-.353	-.356	-.353	-.529
11	-.177	-1.530	-5.544	-.414	-1.462	-.347	-.369	-.632
12	-.179	-1.865	-6.293	-.420	-1.102	-.349	-.392	-.870
13	-.219	.369	.410	-.798	.092	-.301	-.402	.195
14	-.351	.441	.140	-1.753	.100	-1.096	-.431	.362
15	-1.417	.520	.567	.164	.112	.067	-.412	-.370
16	-1.181	.569	.617	.189	.137	.100	-.792	-.580
17	.227	.638	.619	.202	.179	.134	.115	-.768
18	-.425	.662	.513	.206	.200	.180	.171	.342
19	.186	-.456	-.515	.212	.216	.245	.260	-.302
20	-.278	-.482	-.613	.224	-.264	.330	.464	-.710
21	.117	-.553	-.161	-.277	-.277	-.393	-.992	-.058
22	-.249	-.774	-.983	-.285	-.312	-.412	-.462	-.508
23	.313	-1.948	-1.529	-.335	-.329	-.435	-.530	.235
24	-1.200	-2.337	-2.670	-.351	-.297	-.452	-.621	-.909
25	.225	.199	-.789	-.441	-1.329	-.483	-.895	.385
26	-.346	-1.294	-.161	-1.645	-1.125	-.531	-.408	-1.644
				$\delta_e = 20°$				
1	.017	.071	.330	.135	.067	.004	-.002	.069
2	.058	.128	.418	.169	.074	.006	.019	.094
3	.062	.206	.511	.183	.114	.027	.037	.126
4	.079	.246	.632	.196	.145	.079	.065	.199
5	.095	.318	.891	.213	.160	.106	.092	.281
6	.124	.385	.983	.229	.172	.149	.144	.449
7	-.006	-.120	-.732	.229	-.227	.201	.194	-.352
8	.025	-.136	-.257	-.256	-.268	-.277	.256	-.394
9	-.043	-.238	-1.285	-.258	-.297	-.300	-.302	-.428
10	-.054	-.320	-1.600	-.288	-.278	-.317	-.329	-.455
11	-.046	-1.460	-3.481	-.313	-1.258	-.306	-.342	-.551
12	-.064	-1.226	-4.205	-.319	-.973	-.317	-.356	-.753
13	-.104	.222	.247	-.596	.031	-.259	-.365	.172
14	-.168	.285	.046	-1.317	.033	-.926	-.392	.325
15	-1.453	.350	.375	.087	.059	.033	-.381	-.153
16	-.878	.381	.402	.104	.082	.064	-.506	-.520
17	.112	.458	.402	.121	.131	.097	.085	-.704
18	-.246	.495	.328	.133	.160	.143	.140	.306
19	.097	-.226	-.331	.156	.180	.203	.215	-.126
20	-.137	-.234	-.435	.185	-.243	.292	.423	-.633
21	.039	-.391	-.148	-.219	-.262	-.368	-.700	.090
22	-.093	-.521	-.600	-.225	-.290	-.377	-.433	-.249
23	.288	-1.629	-1.132	-.271	-.309	-.397	-.502	.218
24	-1.126	-1.613	-1.623	-.285	-.274	-.420	-.583	-.790
25	.199	.181	-.510	-.315	-1.147	-.439	-.823	.346
26	-.319	-1.145	-.151	-1.315	-1.020	-.497	-.204	-1.247

TABLE 35 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

ψ=21°; α= 20°; δ_r=0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				δ_e= 10°				
1	.044	.015	.396	.039	.008	-.027	-.024	.039
2	.060	.035	.414	.064	.019	-.018	-.002	.062
3	.044	.091	.431	.070	.054	.004	.006	.108
4	.044	.100	.475	.085	.100	.058	.050	.170
5	.042	.160	.664	.112	.132	.097	.082	.257
6	.054	.222	.734	.143	.149	.128	.124	.429
7	-.067	-.035	-.394	.169	-.172	.191	.175	-.338
8	-.021	-.066	-.119	-.161	-.211	-.249	.245	-.380
9	.058	-.148	-.642	-.165	-.238	-.274	-.279	-.411
10	.037	-.166	-.789	-.186	-.199	-.290	-.307	-.440
11	.012	-.898	-2.016	-.200	-1.034	-.282	-.311	-.525
12	-.025	-.767	-2.123	-.205	-.824	-.296	-.339	-.695
13	-.056	.091	.012	-.605	-.027	-.245	-.343	.160
14	-.088	.139	-.078	-.903	-.015	-.848	-.375	.311
15	-.579	.179	.127	.017	.011	.016	-.359	-.056
16	-.490	.193	.147	.035	.036	.049	-.438	-.514
17	.006	.250	.133	.062	.096	.080	.080	-.689
18	-.137	.301	.093	.081	.130	.136	.129	.290
19	.006	-.127	-.181	.109	.169	.195	.207	-.058
20	-.081	-.154	-.227	.155	-.199	.282	.416	-.625
21	.008	-.239	-.155	-.153	-.216	-.344	-.588	.127
22	-.006	-.295	-.272	-.151	-.245	-.362	-.416	-.104
23	.258	-1.025	-.827	-.205	-.264	-.381	-.478	.199
24	-1.031	-.904	-.823	-.215	-.259	-.401	-.562	-.732
25	.158	.154	-.243	-.329	-.943	-.418	-.801	.326
26	-.285	-.965	-.155	-1.033	-.887	-.479	-.102	-.988
				δ_e= 0°				
1	.072	-.027	.023	-.072	-.047	-.062	-.042	.037
2	.070	-.041	.008	-.051	-.029	-.058	-.019	.054
3	.041	-.025	-.027	-.043	.018	-.035	-.002	.103
4	.023	-.037	-.046	-.033	.071	.023	.031	.169
5	.010	.000	.168	-.016	.106	.056	.060	.259
6	.012	.047	.212	.039	.126	.103	.112	.432
7	-.092	-.012	.023	.086	-.132	.161	.164	-.317
8	-.066	-.022	-.013	-.074	-.173	-.217	.236	-.366
9	.074	-.051	.002	-.070	-.206	-.247	-.251	-.395
10	.057	-.020	.037	-.090	-.193	-.260	-.280	-.430
11	.031	-.335	-.630	-.102	-.886	-.256	-.288	-.514
12	.012	-.296	-.711	-.119	-.727	-.264	-.307	-.683
13	.000	-.039	-.158	-.352	-.063	-.221	-.315	.158
14	-.002	-.039	-.160	-.583	-.051	-.763	-.346	.313
15	-.139	-.027	-.067	-.057	-.026	-.006	-.332	-.072
16	-.170	-.025	-.048	-.041	.016	.023	-.388	-.492
17	-.057	.022	-.125	-.018	.069	.052	.069	-.660
18	-.039	.071	-.154	.008	.120	.111	.125	.292
19	-.029	-.031	-.071	.049	.141	.175	.205	-.056
20	-.029	-.043	-.060	.102	-.173	.258	.405	-.605
21	-.002	-.051	-.160	-.090	-.194	-.328	-.486	.134
22	.010	-.078	-.081	-.098	-.220	-.344	-.394	-.136
23	.250	-.418	-.293	-.133	-.244	-.359	-.454	.198
24	-.969	-.396	-.287	-.160	-.244	-.373	-.537	-.732
25	.150	.133	-.058	-.168	-.866	-.396	-.755	.333
26	-.256	-.759	-.166	-.755	-.829	-.435		-1.088
				δ_e= -10°				
1	.066	-.055	-.366	-.151	-.100	-.081	-.072	-.002
2	.054	-.077	-.467	-.133	-.075	-.070	-.042	.029
3	.030	-.099	-.596	-.135	-.031	-.041	-.028	.069
4	.010	-.130	-.626	-.130	.027	.010	.002	.133
5	-.008	-.119	-.526	-.099	.069	.047	.034	.214
6	-.018	-.095	-.465	-.048	.102	.097	.089	.376
7	-.119	.008	.213	.015	-.067	.155	.141	-.297
8	-.085	.032	.035	.019	-.110	-.176	.213	-.335
9	.052	.051	.331	.029	-.150	-.205	-.231	-.366
10	.046	.093	.498	.015	-.121	-.225	-.264	-.387
11	.034	-.101	.161	.006	-.675	-.221	-.276	-.462
12	.028	-.036	.049	-.017	-.571	-.229	-.290	-.605
13	.038	-.136	-.346	-.191	-.100	-.198	-.298	.119
14	.048	-.160	-.262	-.331	-.092	-.682	-.326	.264
15	-.105	-.192	-.301	-.114	-.060	-.012	-.312	.118
16	-.058	-.198	-.305	-.101	-.029	.014	-.340	-.459
17	-.099	-.172	-.228	-.077	.042	.062	.048	-.645
18	.030	-.146	-.177	-.054	.088	.105	.099	.250
19	-.060	.051	.079	.000	.121	.167	.173	.100
20	.014	.091	.102	.056	-.119	.248	.378	-.566
21	-.008	.111	-.195	-.019	-.135	-.297	-.308	.239
22	.016	.107	.124	-.019	-.162	-.304	-.380	.091
23	.243	-.095	-.242	-.052	-.188	-.326	-.437	.158
24	-.911	-.045	-.142	-.085	-.188	-.345	-.507	-.607
25	.137	.115	.122	-.077	-.608	-.362	-.712	.289
26	-.243	-.516	-.199	-.513	-.683	-.403	.133	-.676

TABLE 35 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 21°$; $\alpha = 20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -20°$				
1	-.004	-.093	-.886	-.235	-.129	-.109	-.083	-.012
2	.006	-.114	-1.075	-.217	-.110	-.095	-.066	.014
3	-.002	-.165	-1.344	-.231	-.050	-.072	-.049	.056
4	-.014	-.209	-1.413	-.219	.008	-.010	-.012	.115
5	-.032	-.244	-1.136	-.183	.054	.021	.019	.200
6	-.046	-.264	-1.144	-.125	.094	.074	.066	.358
7	-.153	.045	.250	-.052	.002	.138	.117	-.255
8	-.237	.104	.132	.127	-.040	-.138	.186	-.296
9	.018	.146	.409	.133	-.092	-.173	-.181	-.317
10	.040	.169	.608	.123	-.072	-.189	-.210	-.337
11	.042	.094	.490	.113	-.518	-.196	-.216	-.403
12	.054	.148	.295	.091	-.454	-.200	-.235	-.529
13	.074	-.240	-.573	-.085	-.122	-.183	-.239	.093
14	.078	-.248	-.421	-.165	-.118	-.578	-.266	.245
15	-.028	-.327	-.604	-.163	-.082	-.041	-.258	.228
16	-.034	-.356	-.679	-.157	-.038	-.004	-.256	-.422
17	-.133	-.358	-.510	-.127	.030	.033	.031	-.597
18	.095	-.366	-.439	-.097	.080	.084	.082	.233
19	-.083	.154	.220	-.036	.124	.142	.144	.195
20	.066	.215	.272	.032	-.062	.228	.338	-.516
21	-.032	.254	-.226	.060	-.082	-.263	-.064	.311
22	.040	.274	.368	.052	-.116	-.278	-.326	.230
23	.229	.144	.102	.016	-.141	-.298	-.388	.136
24	-.857	.181	.108	-.020	-.133	-.315	-.447	-.504
25	.121	.098	.323	-.044	-.488	-.321	-.629	.268
26	-.225	-.504	-.232	-.392	-.588	-.360	.320	-.488
				$\delta_e = -30°$				
1	-.133	-.213	-1.079	-.298	-.171	-.135	-.105	-.026
2	-.121	-.304	-1.029	-.304	-.149	-.113	-.079	-.008
3	-.072	-.344	-1.996	-.318	-.094	-.091	-.053	.033
4	-.051	-.336	-2.065	-.320	-.024	-.034	-.022	.100
5	-.080	-.417	-1.640	-.294	.024	.010	.014	.183
6	-.104	-.520	-1.876	-.223	.063	.055	.065	.337
7	-.252	.136	.314	-.143	.057	.119	.121	-.258
8	-.975	.206	.212	.231	.008	-.101	.192	-.293
9	.010	.265	.477	.243	-.049	-.133	-.176	-.313
10	.057	.332	.621	.237	-.039	-.152	-.210	-.333
11	.082	.285	.544	.233	-.398	-.156	-.216	-.398
12	.092	.322	.318	.195	-.355	-.170	-.236	-.528
13	.117	-.407	-.674	.066	-.157	-.154	-.246	.089
14	.115	-.466	-.501	.000	-.147	-.467	-.275	.242
15	.029	-.508	-.853	-.217	-.112	-.048	-.265	.256
16	.031	-.569	-.988	-.213	-.069	-.016	-.275	-.419
17	-.221	-.626	-.754	-.195	.004	.020	.034	-.600
18	.174	-.680	-.719	-.161	.061	.071	.085	.224
19	-.162	.285	.328	-.089	.098	.123	.156	.217
20	.143	.356	.389	-.022	-.022	.212	.358	-.518
21	-.202	.397	-.244	.139	-.039	-.234	-.184	.329
22	.078	.427	.554	.125	-.076	-.251	-.349	.258
23	.202	.358	.336	.089	-.108	-.259	-.398	.114
24	-.781	.399	.287	.050	-.116	-.277	-.483	-.486
25	.106	.087	.460	.002	-.396	-.281	-.675	.252
26	-.204	-.455	-.246	-.225	-.520	-.321	.236	-.455
				$\delta_e = -40°$				
1	-.205	-.276	-.291	-.220	-.152	-.109	-.098	-.020
2	-.277	-.330	-.346	-.212	-.132	-.097	-.074	.002
3	-.344	-.475	-.532	-.225	-.078	-.074	-.052	.046
4	-.385	-.642	-.829	-.233	-.022	-.014	-.020	.109
5	-.389	-.664	-1.330	-.224	.028	.021	.018	.190
6	-.373	-1.143	-1.855	-.175	.070	.078	.062	.349
7	-.490	.203	.363	-.102	.126	.136	.112	-.244
8	-1.150	.286	.289	.320	.080	-.055	.182	-.292
9	-.039	.362	.550	.335	.016	-.090	-.142	-.313
10	-.010	.437	.684	.327	.004	-.111	-.174	-.337
11	-.002	.437	.434	.325	-.238	-.125	-.176	-.417
12	.033	.505	.179	.286	-.262	-.135	-.196	-.538
13	.096	-.252	-.464	.145	-.142	-.121	-.202	.095
14	.123	-.312	-.346	.114	-.134	-.441	-.228	.254
15	.072	-.461	-.580	-.169	-.100	-.035	-.222	.216
16	.109	-.692	-.733	-.157	-.060	-.002	-.228	-.425
17	-.516	-.992	-.668	-.139	.002	.031	.032	-.605
18	.244	-1.125	-.707	-.116	.064	.078	.076	.238
19	-.455	.406	.354	-.049	.102	.133	.146	.179
20	.168	.499	.444	.008	.034	.218	.317	-.532
21	-.330	.541	-.218	.216	.010	-.203	.010	.296
22	.082	.569	.650	.204	-.032	-.214	-.309	.204
23	.203	.521	.479	.163	-.066	-.238	-.349	.125
24	-.725	.590	.399	.116	-.064	-.250	-.423	-.514
25	.109	.089	.527	.012	-.220	-.267	-.599	.262
26	-.178	-.344	-.224	-.153	-.422	-.296	.365	-.548

TABLE 36

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi=30°$; $\alpha=-20°$; $\delta_r=0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e=40°$				
1	.166	.130	.051	-.348	-.548	-.563	-.553	
2	-.092				-.589	-.566		
		-.432	-.425	-.472	-.562	-.558	-.550	-.528
4	-.402	-.476	-.472	-.514	-.505	-.536	-.539	-.534
5	-.435	-.414	-.366	-.497	-.484	-.514	-.537	-.518
6	-.465	-.368	-.276	-.401	-.470	-.508	-.523	-.504
7	-.554	-.308	-1.618	-.329	.148	-.492	-.512	.575
8	-.486	-.611	-.729	-.149	.172	.286	-.501	.599
9	-.166	-.805	-.984	-.138	.231	.341	.385	.650
10	-.228	-.849	-1.488	-.133	.239	.354	.407	.694
11	-.478	-.786	-1.938	-.122	.183	.374	.458	.707
12	-.554	-.638	-2.247	-.075	.118	.387	.477	.683
13	-.552	.016	-.114	.006	-.567	.368	.472	-.537
14	-.533	-.197	-.341	.036	-.583	.297	.499	-.526
15	-.557	-.432	-.415	-.483	-.575	-.558	.499	-.528
16	-.584	-.516	-.447	-.522	-.548	-.552	.458	.835
17	-.478	-.373	-.366	-.550	-.511	-.536	-.564	.851
18	-.712	-.327	-.282	-.552	-.505	-.516	-.545	-.553
19	-.424	-.486	-.672	-.459	-.481	-.527	-.534	-.537
20	-.660	-.914	-.751	-.423	.207	-.503	-.537	.932
21	-.103	-.849	-.360	.030	.245	.505	-.528	-.539
22	-.329	-1.086	-.783	.058	.285	.530	.661	-.523
23	-.505	-1.184	-.740	.088	.315	.566	.710	-.434
24	.269	-.911	-.526	.133	.290	.602	.751	.585
25	-.514	-.524	-.678	.160	.245	.585	.764	-.499
26	.424	.270	-.360	.130	.137	.577	-.520	.469
				$\delta_e=30°$				
1	.158	.206	.043	-.272	-.556	-.623	-.640	-.663
2	-.055	-.082	-.165	-.381	-.650	-.668	-.653	-.652
3	-.255	-.456	-.512	-.480	-.609	-.640	-.634	-.633
4	-.413	-.508	-.566	-.549	-.545	-.596	-.615	-.635
5	-.479	-.396	-.374	-.523	-.515	-.573	-.591	-.613
6	-.501	-.302	-.257	-.384	-.512	-.562	-.583	-.602
7	-.460	-.217	-1.840	-.323	.146	-.548	-.577	.572
8	-.366	-.261	-.721	-.139	.171	.291	-.569	.605
9	-.042	-.489	-2.667	-.131	.245	.341	.398	.655
10	-.114	-.538	-2.911	-.120	.231	.363	.420	.693
11	-.222	-.503	-3.125	-.115	.196	.402	.469	.713
12	-.366	-.437	-2.593	-.056	.107	.396	.491	.663
13	-.432	.121	-.117	.045	-.601	.380	.499	-.663
14	-.465	-.132	-.347	.072	-.636	.296	.518	-.644
15	-.452	-.475	-.491	-.397	-.650	-.607	.507	-.638
16	-.479	-.577	-.496	-.504	-.606	-.629	.491	.834
17	-.493	-.387	-.371	-.603	-.559	-.604	-.629	.843
18	-.485	-.297	-.263	-.557	-.540	-.582	-.607	-.663
19	-.424	-.385	-.618	-.472	-.534	-.579	-.593	-.641
20	-.410	-.492	-.805	-.413	.223	-.584	-.596	.934
21	-.097	-.698	-.355	.051	.256	.518	-.593	-.669
22	-.175	-.764	-.921	.083	.295	.526	.691	-.627
23	-.568	-.698	-.767	.112	.328	.573	.724	-.500
24	.263	-.602	-.496	.157	.300	.607	.745	.566
25	-.579	-.582	-.900	.192	.234	.612	.778	-.602
26	.435	.250	-.360	.163	.124	.593	-.585	.448
				$\delta_e=20°$				
1	.174	.177	-.008	-.236	-.496	-.732	-.753	-.745
2	-.072	-.114	-.204	-.405	-.730	-.792	-.769	-.732
3	-.259	-.480	-.572	-.559	-.760	-.781	-.769	-.704
4	-.444	-.561	-.610	-.652	-.631	-.742	-.736	-.682
5	-.510	-.368	-.356	-.622	-.595	-.699	-.703	-.688
6	-.512	-.237	-.232	-.471	-.584	-.674	-.687	-.677
7	-.394	-.166	-1.235	-.397	.168	-.671	-.684	.556
8	-.267	-.256	-.392	-.071	.187	.304	-.673	.605
9	.030	-.387	-1.555	-.049	.262	.364	.412	.647
10	-.102	-.376	-1.652	-.058	.248	.386	.434	.685
11	-.245	-.302	-1.785	-.038	.185	.373	.478	.712
12	-.350	-.248	-1.525	.003	.113	.400	.497	.663
13	-.386	.104	-.099	.071	-.625	.381	.527	-.704
14	-.405	-.139	-.345	.107	-.711	.274	.519	-.701
15	-.333	-.510	-.555	-.359	-.780	-.745	.522	-.685
16	-.289	-.610	-.552	-.521	-.755	-.740	.481	.827
17	-.499	-.371	-.373	-.723	-.664	-.715	-.731	.855
18	-.372	-.232	-.262	-.701	-.639	-.699	-.714	-.718
19	-.466	-.281	-.425	-.553	-.617	-.696	-.695	-.704
20	-.350	-.395	-.528	-.510	.223	-.685	-.687	.923
21	-.107	-.474	-.359	.071	.273	.518	-.690	-.715
22	-.185	-.485	-.550	.121	.306	.551	.698	-.682
23	-.653	-.395	-.436	.159	.322	.570	.739	-.532
24	.267	-.300	-.271	.184	.292	.600	.783	.545
25	-.664	-.657	-.539	.195	.220	.611	.766	-.688
26	.427	.264	-.359	.151	.099	.562	-.679	.452

TABLE 36 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi=30°$; $\alpha=-20°$; $\delta_r=0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e=10°$				
1	.133	.101	.008	-.156	-.404	-.818	-.886	-.841
2	-.097	-.207	-.265	-.418	-.829	-.955	-.920	-.838
3	-.302	-.581	-.680	-.615	-.955	-.975	-.914	-.808
4	-.465	-.578	-.638	-.762	-.750	-.927	-.895	-.780
5	-.548	-.385	-.462	-.740	-.669	-.849	-.848	-.775
6	-.526	-.330	-.376	-.525	-.660	-.791	-.814	-.758
7	-.346	-.095	-.474	-.445	.208	-.760	-.787	.602
8	-.263	-.168	-.201	.005	.244	.332	-.776	.629
9	.019	-.232	-.515	.044	.289	.385	.421	.673
10	-.086	-.165	-.582	.046	.264	.411	.435	.698
11	-.219	-.112	-.727	.068	.199	.405	.488	.739
12	-.299	-.081	-.733	.096	.104	.408	.482	.665
13	-.338	.075	-.092	.156	-.643	.374	.507	-.775
14	-.316	-.240	-.370	.134	-.809	.268	.532	-.766
15	-.238	-.603	-.649	-.249	-.952	-.933	.507	-.755
16	-.208	-.656	-.638	-.533	-.949	-.908	.465	.846
17	-.546	-.436	-.462	-.833	-.798	-.874	-.839	.865
18	-.283	-.366	-.432	-.852	-.747	-.827	-.820	-.780
19	-.510	-.154	-.212	-.628	-.725	-.807	-.806	-.783
20	-.285	-.187	-.240	-.571	.272	-.791	-.792	.951
21	-.147	-.221	-.362	.137	.287	.547	-.784	-.786
22	-.147	-.221	-.298	.175	.326	.567	.693	-.742
23	-.770	-.123	-.265	.202	.331	.601	.715	-.566
24	.244	-.101	-.189	.224	.317	.609	.767	.555
25	-.795	-.754	-.259	.238	.228	.609	.742	-.745
26	.429	.237	-.357	.183	.104	.584	-.778	.448
				$\delta_e=0°$				
1	.096	.014	-.044	-.143	-.296	-.934	-1.106	-1.131
2	-.088	-.245	-.382	-.465	-.933	-1.141	-1.136	-1.139
3	-.294	-.650	-.805	-.697	-1.142	-1.169	-1.145	-1.092
4	-.494	-.675	-.758	-.877	-.838	-1.094	-1.123	-1.025
5	-.599	-.556	-.588	-.930	-.732	-.981	-1.053	-1.014
6	-.616	-.510	-.516	-.644	-.735	-.895	-.986	-.978
7	-.525	.022	.214	-.529	.279	-.845	-.930	.593
8	-.418	-.011	.011	.118	.313	.367	-.903	.618
9	.059	-.022	.250	.162	.341	.420	.471	.666
10	.000	.030	.305	.171	.304	.442	.493	.691
11	-.116	.061	.192	.188	.223	.448	.513	.719
12	-.198	.094	.184	.199	.106	.431	.529	.632
13	-.243	-.019	-.085	.221	-.573	.401	.563	-1.056
14	-.234	-.295	-.363	.171	-.916	.276	.554	-1.050
15	-.144	-.702	-.739	-.202	-1.159	-1.144	.538	-1.039
16	-.161	-.725	-.731	-.571	-1.168	-1.122	.496	.850
17	-.636	-.562	-.618	-.986	-.930	-1.072	-1.081	.827
18	-.136	-.512	-.563	-1.042	-.813	-1.006	-1.047	-1.072
19	-.576	.028	.008	-.748	-.796	-.956	-1.019	-1.058
20	-.147	.052	-.003	-.641	.330	-.934	-1.006	.936
21	-.164	.058	-.327	.202	.349	.564	-.986	-1.075
22	-.045	.094	.033	.238	.377	.569	.708	-.992
23	-.898	.127	.038	.269	.405	.608	.747	-.705
24	.203	.116	.060	.269	.346	.624	.786	.524
25	-.924	-.832	.019	.258	.235	.635	.744	-.930
26	.441	.273	-.330	.185	.106	.566	-.964	.418
				$\delta_e=-10°$				
1	.025	-.117	-.249	-.155	-.293	-1.058	-1.339	
2	-.130	-.339	-.610	-.478	-1.044	-1.384	-1.401	
3	-.310	-.699	-1.014	-.740	-1.263	-1.373	-1.412	
4	-.510	-.786	-.939	-.928	-.945	-1.290	-1.370	
5	-.640	-.667	-.746	-1.077	-.795	-1.148	-1.286	
6	-.693	-.623	-.666	-.765	-.775	-1.044	-1.210	
7	-.704	.133	.677	-.619	.318	-.995	-1.134	
8	-.543	.163	.370	.246	.348	.408	-1.101	
9	.091	.171	.751	.287	.364	.452	.487	
10	.044	.222	.771	.298	.326	.458	.515	
11	-.053	.252	.699	.315	.216	.460	.546	
12	-.105	.230	.657	.315	.090	.441	.555	
13	-.127	-.154	-.213	.287	-.611	.411	.543	
14	-.130	-.417	-.442	.221	-1.038	.274	.557	
15	-.100	-.783	-.887	-.177	-1.332	-1.438	.555	
16	-.097	-.864	-.887	-.577	-1.285	-1.397	.485	
17	-.765	-.686	-.715	-1.072	-.978	-1.356	-1.423	
18	.000	-.626	-.669	-1.177	-.899	-1.274	-1.395	
19	-.623	.214	.251	-.818	-.879	-1.214	-1.361	
20	-.003	.287	.276	-.680	.359	-1.164	-1.325	
21	-.222	.298	-.354	.304	.378	.578	-1.317	
22	.050	.309	.326	.340	.405	.595	.745	
23	-1.053	.331	.282	.356	.411	.622	.784	
24	.208	.304	.213	.348	.353	.625	.818	
25	-1.075	-.892	.312	.309	.249	.619	.706	
26	.432	.285	-.370	.213	.096	.578	-1.235	

TABLE 36 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi=30°$; $\alpha=-20°$; $\delta_r=0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e=-20°$				
1	-.036	-.259	-.644	-.183	-.314	-1.183	-1.416	-1.520
2	-.167	-.435	-.977	-.527	-1.167	-1.531	-1.515	-1.539
3	-.318	-.788	-1.401	-.786	-1.347	-1.525	-1.521	-1.497
4	-.504	-.967	-1.266	-1.028	-1.008	-1.410	-1.512	-1.436
5	-.660	-.797	-.887	-1.228	-.833	-1.334	-1.454	-1.408
6	-.749	-.738	-.831	-.966	-.822	-1.211	-1.396	-1.377
7	-.855	.240	.559	-.752	.396	-1.149	-1.321	.648
8	-.638	.306	.325	.377	.426	.413	-1.283	.684
9	.131	.354	.667	.406	.413	.486	.504	.718
10	.128	.404	.788	.428	.352	.492	.529	.743
11	.058	.407	.847	.428	.246	.475	.562	.740
12	.017	.354	.768	.428	.104	.452	.571	.626
13	-.022	-.359	-.370	.355	-.598	.413	.579	-1.461
14	-.017	-.591	-.525	.245	-1.164	.272	.562	-1.444
15	.058	-.930	-1.003	-.206	-1.467	-1.531	.529	-1.430
16	-.019	-1.100	-1.121	-.623	-1.407	-1.539	.465	.899
17	-.827	-.861	-.839	-1.183	-1.082	-1.486	-1.490	.858
18	.164	-.794	-.749	-1.313	-.981	-1.447	-1.465	-1.478
19	-.638	.404	.475	-.975	-.954	-1.399	-1.438	-1.447
20	.164	.476	.556	-.777	.404	-1.357	-1.421	.964
21	-.270	.515	-.379	.366	.429	.601	-1.429	-1.475
22	.167	.524	.588	.406	.448	.607	.762	-1.419
23	-1.203	.499	.489	.420	.445	.629	.784	-.958
24	.175	.435	.347	.406	.377	.649	.784	.500
25	-1.259	-1.050	.605	.341	.251	.618	.695	-1.310
26	.460	.281	-.373	.225	.077	.551	-1.371	.402
				$\delta_e=-30°$				
1	-.128	-.427	-1.342	-.197	-.323	-1.144	-1.612	-1.740
2	-.201	-.539	-1.644	-.558	-1.235	-1.594	-1.728	-1.737
3	-.315	-.874	-1.835	-.823	-1.436	-1.617	-1.773	-1.709
4	-.507	-1.042	-1.504	-1.073	-1.088	-1.546	-1.788	-1.630
5	-.671	-.964	-1.136	-1.310	-.918	-1.451	-1.737	-1.585
6	-.802	-.899	-1.011	-1.062	-.901	-1.310	-1.680	-1.537
7	-1.047	.335	.644	-.848	.456	-1.248	-1.564	.655
8	-.777	.447	.451	.470	.479	.485	-1.507	.698
9	.184	.497	.776	.507	.456	.521	.510	.729
10	.226	.534	.790	.541	.363	.532	.516	.751
11	.156	.506	.754	.546	.255	.499	.569	.734
12	.125	.430	.675	.521	.099	.493	.584	.596
13	.111	-.601	-.611	.411	-.637	.423	.569	-1.605
14	.095	-.774	-.625	.268	-1.229	.259	.555	-1.593
15	.159	-1.081	-1.140	-.223	-1.567	-1.603	.516	-1.571
16	.058	-1.204	-1.300	-.690	-1.521	-1.620	.470	.904
17	-.903	-1.006	-.980	-1.296	-1.221	-1.580	-1.697	.842
18	.306	-.941	-.882	-1.400	-1.102	-1.521	-1.660	-1.613
19	-.638	.486	.639	-1.031	-1.065	-1.465	-1.612	-1.579
20	.284	.628	.706	-.859	.465	-1.431	-1.595	.949
21	-.290	.668	-.403	.456	.465	.625	-1.567	-1.616
22	.309	.668	.756	.485	.496	.656	.742	-1.562
23	-1.368	.561	.588	.490	.459	.676	.773	-1.105
24	.131	.492	.415	.454	.388	.665	.782	.429
25	-1.423	-1.226	.742	.383	.255	.639	.703	-1.525
26	.432	.260	-.401	.254	.079	.563	-1.552	.356
				$\delta_e=-40°$				
1	-.323	-.512	-1.781	-.246	-.353	-1.171	-1.535	-1.621
2	-.318	-.565	-2.025	-.581	-1.275	-1.492	-1.632	-1.635
3	-.415	-.850	-1.854	-.827	-1.480	-1.506	-1.651	-1.596
4	-.563	-1.033	-1.416	-1.048	-1.165	-1.412	-1.648	-1.546
5	-.710	-.978	-1.090	-1.249	-.994	-1.343	-1.579	-1.510
6	-.825	-.942	-1.039	-1.062	-.951	-1.221	-1.535	-1.479
7	-1.120	.452	.713	-.875	.486	-1.155	-1.465	.680
3	-.802	.573	.581	.572	.509	.511	-1.407	.705
9	.212	.634	.843	.609	.465	.530	.571	.738
10	.267	.657	.809	.615	.370	.536	.568	.741
11	.248	.626	.539	.623	.251	.508	.601	.733
12	.237	.512	.379	.581	.092	.492	.604	.604
13	.226	-.745	-.671	.465	-.650	.439	.601	-1.568
14	.223	-.831	-.691	.297	-1.254	.271	.590	-1.552
15	.292	-1.114	-1.177	-.227	-1.624	-1.497	.551	-1.540
16	.178	-1.155	-1.247	-.666	-1.566	-1.514	.521	.897
17	-.897	-1.014	-.972	-1.212	-1.280	-1.475	-1.626	.847
18	.468	-.972	-.902	-1.334	-1.139	-1.414	-1.598	-1.565
19	-.638	.632	.728	-1.045	-1.110	-1.378	-1.560	-1.546
20	.429	.745	.798	-.875	.468	-1.329	-1.535	.955
21	-.384	.792	-.416	.510	.494	.649	-1.535	-1.579
22	.401	.776	.809	.535	.491	.657	.776	-1.526
23	-1.262	.706	.629	.533	.465	.663	.803	-1.067
24	.156	.562	.402	.504	.379	.657	.809	.443
25	-1.304	-1.166	.823	.402	.251	.646	.704	-1.429
26	.460	.258	-.416	.258	.052	.566	-1.474	.370

TABLE 37

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 30°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.061	.054	-.107	-.334	-.493	-.594	-.638	-.707
2	-.096	-.145	-.250	-.425	-.608	-.644	-.650	-.711
3	-.219	-.388	-.425	-.487	-.606	-.626	-.650	-.699
4	-.328	-.463	-.469	-.515	-.535	-.583	-.623	-.663
5	-.408	-.435	-.392	-.507	-.511	-.567	-.603	-.635
6	-.459	-.421	-.378	-.421	-.513	-.549	-.589	-.613
7	-.529	-.370	-.984	-.374	.062	-.531	-.565	.397
8	-.506	-.485	-.513	-.157	.097	.189	-.553	.427
9	-.164	-.427	-.630	-.117	.161	.235	.265	.491
10	-.313	-.501	-.757	-.111	.193	.270	.292	.551
11	-.430	-.565	-.791	-.093	.179	.300	.328	.623
12	-.441	-.612	-.732	-.040	.139	.330	.366	.695
13	-.453	-.038	-.187	.032	-.565	.348	.397	-.772
14	-.461	-.207	-.362	.056	-.612	.318	.433	-.750
15	-.494	-.408	-.443	-.449	-.622	-.664	.460	-.695
16	-.482	-.485	-.467	-.517	-.612	-.656	.472	.657
17	-.467	-.384	-.394	-.575	-.565	-.634	-.713	.766
18	-.498	-.368	-.406	-.551	-.535	-.612	-.698	-.832
19	-.363	-.489	-.547	-.475	-.531	-.596	-.672	-.772
20	-.461	-.485	-.551	-.439	.127	-.559	-.638	.812
21	-.119	-.437	-.332	-.026	.149	.368	-.725	-.870
22	-.393	-.525	-.515	.024	.185	.412	.526	-.673
23	-.551	-.676	-.390	.054	.227	.447	.583	-.463
24	.334	-.634	-.274	.101	.256	.493	.680	.599
25	-.563	-.551	-.515	.143	.231	.555	.771	-.567
26	.387	.252	-.350	.133	.161	.579	-.626	.483
				$\delta_e = 30°$				
1	.052	.006	-.088	-.335	-.517	-.591	-.613	-.629
2	-.090	-.166	-.216	-.419	-.591	-.619	-.627	-.625
3	-.181	-.362	-.407	-.462	-.541	-.597	-.619	-.611
4	-.309	-.456	-.465	-.496	-.513	-.565	-.607	-.603
5	-.412	-.424	-.377	-.504	-.497	-.551	-.587	-.583
6	-.468	-.442	-.317	-.427	-.485	-.523	-.569	-.555
7	-.576	-.220	-1.637	-.379	.028	-.501	-.551	.423
8	-.540	-.266	-.573	-.220	.062	.142	-.541	.455
9	-.123	-.384	-2.601	-.218	.120	.204	.242	.517
10	-.151	-.540	-3.000	-.230	.162	.234	.255	.575
11	-.201	-.532	-3.467	-.226	.154	.279	.299	.641
12	-.267	-.500	-3.206	-.169	.120	.315	.339	.719
13	-.378	-.074	-.176	-.065	-.577	.319	.361	-.689
14	-.420	-.216	-.331	-.008	-.617	.301	.397	-.669
15	-.504	-.378	-.419	-.440	-.597	-.649	.425	-.635
16	-.540	-.492	-.453	-.506	-.563	-.627	.441	.679
17	-.474	-.406	-.377	-.558	-.525	-.609	-.671	.800
18	-.464	-.378	-.319	-.526	-.509	-.589	-.659	-.743
19	-.317	-.334	-.635	-.466	-.505	-.571	-.641	-.681
20	-.329	-.398	-.832	-.431	.096	-.549	-.615	.844
21	-.110	-.636	-.323	-.073	.116	.343	-.697	-.752
22	-.209	-.762	-1.010	-.026	.172	.385	.491	-.613
23	-.518	-.716	-.882	.008	.190	.431	.561	-.443
24	.329	-.682	-.625	.040	.226	.467	.647	.627
25	-.542	-.496	-.924	.089	.214	.521	.770	-.523
26	.378	.246	-.339	.099	.160	.547	-.601	.505
				$\delta_e = 20°$				
1	.077	.018	-.121	-.301	-.514	-.637	-.677	-.726
2	-.071	-.161	-.260	-.413	-.619	-.679	-.707	-.716
3	-.207	-.391	-.460	-.483	-.640	-.673	-.705	-.698
4	-.331	-.464	-.510	-.523	-.575	-.645	-.695	-.682
5	-.407	-.391	-.381	-.509	-.559	-.639	-.667	-.661
6	-.443	-.365	-.335	-.436	-.557	-.605	-.661	-.639
7	-.467	-.163	-1.220	-.383	.053	-.593	-.636	.410
8	-.423	-.236	-.391	-.134	.083	.162	-.626	.454
9	-.030	-.383	-1.623	-.122	.146	.222	.251	.505
10	-.098	-.399	-1.786	-.128	.182	.251	.279	.580
11	-.189	-.354	-2.069	-.104	.166	.291	.327	.651
12	-.293	-.314	-1.935	-.051	.113	.323	.354	.692
13	-.358	-.065	-.171	.020	-.577	.321	.380	-.809
14	-.386	-.214	-.331	.055	-.628	.285	.406	-.759
15	-.390	-.418	-.460	-.407	-.670	-.709	.446	-.738
16	-.402	-.509	-.490	-.501	-.644	-.715	.451	.675
17	-.445	-.383	-.391	-.589	-.599	-.679	-.802	.781
18	-.388	-.363	-.357	-.544	-.597	-.665	-.804	-.862
19	-.343	-.271	-.482	-.481	-.587	-.653	-.760	-.785
20	-.329	-.385	-.591	-.450	.109	-.621	-.715	.838
21	-.091	-.509	-.321	.002	.136	.357	-.794	-.872
22	-.140	-.550	-.631	.029	.186	.407	.501	-.706
23	-.596	-.473	-.532	.065	.215	.455	.572	-.477
24	.329	-.405	-.395	.112	.237	.495	.659	.611
25	-.608	-.595	-.617	.147	.219	.543	.747	-.606
26	.380	.246	-.317	.141	.152	.561	-.687	.511

TABLE 37 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 30°$; $\alpha = -10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 10°$				
1	.086	.022	-.048	-.243	-.507	-.724	-.863	-1.006
2	-.068	-.141	-.239	-.402	-.691	-.844	-.942	-1.018
3	-.223	-.461	-.561	-.540	-.752	-.848	-.962	-.982
4	-.380	-.522	-.569	-.637	-.681	-.811	-.938	-.923
5	-.474	-.404	-.461	-.669	-.649	-.781	-.895	-.873
6	-.496	-.363	-.388	-.530	-.633	-.732	-.865	-.843
7	-.406	-.094	-.469	-.504	.144	-.732	-.837	.425
8	-.339	-.176	-.189	-.044	.158	.205	-.805	.460
9	.026	-.249	-.545	-.028	.218	.252	.278	.510
10	-.062	-.190	-.596	-.026	.230	.276	.282	.575
11	-.181	-.161	-.781	-.010	.202	.318	.340	.647
12	-.269	-.104	-.773	.036	.138	.337	.366	.716
13	-.317	-.006	-.115	.084	-.617	.345	.390	-1.123
14	-.301	-.186	-.312	.106	-.707	.302	.427	-1.083
15	-.293	-.496	-.535	-.384	-.788	-.949	.449	-1.042
16	-.251	-.582	-.569	-.530	-.772	-.935	.449	.688
17	-.506	-.445	-.499	-.705	-.703	-.907	-1.121	.808
18	-.295	-.404	-.525	-.733	-.683	-.858	-1.115	-1.208
19	-.426	-.135	-.245	-.606	-.683	-.817	-1.078	-1.300
20	-.269	-.220	-.272	-.592	.170	-.801	-1.018	.855
21	-.108	-.253	-.292	.048	.196	.385	-1.087	-1.260
22	-.120	-.251	-.328	.068	.242	.434	.515	-.964
23	-.737	-.165	-.302	.108	.277	.467	.586	-.603
24	.315	-.129	-.243	.153	.281	.499	.686	.611
25	-.753	-.729	-.286	.179	.242	.544	.771	-.792
26	.394	.249	-.298	.161	.168	.566	-.915	.496
				$\delta_e = 0°$				
1	.051	-.029	-.026	-.118	-.323	-.754	-1.014	-1.390
2	-.006	-.125	-.232	-.272	-.718	-1.107	-1.273	-1.481
3	-.139	-.529	-.685	-.491	-1.097	-1.198	-1.374	-1.440
4	-.360	-.691	-.791	-.714	-.911	-1.179	-1.385	-1.360
5	-.527	-.594	-.632	-.901	-.855	-1.105	-1.304	-1.279
6	-.602	-.551	-.575	-.698	-.853	-1.038	-1.249	-1.210
7	-.545	.004	.272	-.631	.185	-.998	-1.176	.457
8	-.503	.002	.022	.077	.206	.248	-1.144	.501
9	.077	-.010	.268	.110	.260	.290	.318	.556
10	.022	.016	.325	.124	.258	.310	.326	.636
11	-.048	.074	.217	.134	.208	.349	.377	.699
12	-.119	.092	.222	.156	.123	.363	.407	.721
13	-.186	-.037	-.110	.207	-.490	.363	.437	-1.661
14	-.208	-.150	-.287	.162	-.700	.302	.468	-1.608
15	-.180	-.566	-.600	-.205	-1.044	-1.399	.488	-1.513
16	-.196	-.768	-.732	-.394	-1.167	-1.433	.458	.727
17	-.663	-.584	-.628	-.838	-.992	-1.365	-1.646	.818
18	-.129	-.578	-.587	-1.010	-.958	-1.284	-1.682	-1.731
19	-.465	.033	-.026	-.807	-.927	-1.208	-1.607	-1.772
20	-.117	.043	-.006	-.769	.204	-1.175	-1.528	.875
21	-.075	.066	-.295	.132	.230	.413	-1.798	-1.895
22	-.028	.047	.008	.166	.278	.458	.553	-1.400
23	-1.083	.117	.014	.199	.294	.498	.615	-.826
24	.277	.135	.035	.215	.292	.544	.706	.612
25	-1.115	-1.023	.010	.231	.242	.589	.789	-1.093
26	.404	.254	-.289	.189	.121	.593	-1.334	.487
				$\delta_e = -10°$				
1	-.006	-.155	-.487	-.208	-.233	-.471	-.798	-1.478
2	-.032	-.243	-.766	-.229	-.530	-1.194	-1.349	-2.092
3	-.107	-.618	-1.263	-.393	-1.496	-1.595	-1.752	-2.150
4	-.298	-.936	-1.325	-.739	-1.213	-1.671	-1.891	-1.965
5	-.504	-.771	-.922	-1.249	-1.062	-1.457	-1.756	-1.838
6	-.673	-.735	-.848	-.998	-1.044	-1.319	-1.609	-1.719
7	-.700	.100	.555	-.824	.257	-1.281	-1.492	.474
8	-.651	.151	.180	.231	.285	.305	-1.431	.517
9	.067	.187	.649	.255	.317	.355	.349	.600
10	.087	.247	.780	.265	.295	.363	.371	.651
11	.062	.265	.788	.291	.231	.395	.415	.719
12	.024	.261	.760	.304	.116	.389	.462	.704
13	-.028	-.223	-.395	.310	-.327	.377	.486	-2.526
14	-.052	-.353	-.391	.243	-.442	.305	.482	-2.481
15	-.063	-.705	-.776	-.174	-1.169	-1.749	.514	-2.353
16	-.103	-1.112	-1.072	-.239	-1.610	-2.002	.480	.747
17	-.829	-.829	-.756	-.848	-1.263	-1.956	-2.105	.828
18	.056	-.785	-.677	-1.385	-1.165	-1.798	-2.365	-2.782
19	-.478	.209	.287	-1.105	-1.145	-1.653	-2.188	-2.834
20	.062	.283	.339	-.958	.263	-1.577	-2.052	.891
21	-.111	.335	-.313	.229	.285	.449	-2.458	-3.027
22	.062	.343	.381	.267	.327	.483	.593	-2.060
23	-1.315	.317	.321	.300	.331	.521	.663	-1.152
24	.270	.367	.259	.304	.323	.565	.742	.595
25	-1.367	-1.225	.373	.289	.241	.599	.796	-1.466
26	.431	.251	-.321	.229	.108	.581	-1.784	.489

TABLE 37 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi=30°$; $\alpha=-10°$; $\delta_r=0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e=-20°$				
1	-.099	-.299	-1.315	-.360	-.286	-.440	-.793	-1.536
2	-.129	-.329	-1.904	-.376	-.362	-1.083	-1.308	-2.344
3	-.193	-.679	-2.896	-.457	-1.789	-1.747	-1.881	-2.436
4	-.326	-1.082	-2.186	-.736	-1.481	-2.000	-2.147	-2.200
5	-.479	-1.046	-1.283	-1.421	-1.209	-1.689	-1.998	-2.037
6	-.680	-.998	-1.202	-1.249	-1.189	-1.493	-1.807	-1.922
7	-.952	.208	.533	-1.002	.326	-1.424	-1.642	.515
8	-.829	.307	.329	.360	.346	.339	-1.573	.552
9	.089	.379	.681	.396	.364	.382	.412	.605
10	.113	.443	.770	.414	.330	.386	.421	.667
11	.095	.473	.910	.425	.247	.408	.453	.730
12	.095	.417	.856	.421	.127	.408	.485	.714
13	.082	-.481	-.776	.382	-.324	.394	.507	-2.857
14	.070	-.561	-.685	.276	-.286	.295	.521	-2.802
15	.082	-.960	-1.126	-.280	-1.076	-1.820	.525	-2.730
16	.018	-1.357	-1.467	-.294	-1.990	-2.347	.487	.785
17	-.901	-1.134	-1.006	-.797	-1.451	-2.319	-2.211	.843
18	.231	-1.090	-.850	-1.577	-1.322	-2.093	-2.684	-3.108
19	-.447	.367	.523	-1.336	-1.294	-1.905	-2.495	-2.902
20	.197	.475	.587	-1.101	.332	-1.796	-2.308	.902
21	-.179	.539	-.361	.320	.338	.473	-2.783	-3.413
22	.169	.577	.673	.366	.376	.511	.636	-2.366
23	-1.465	.575	.573	.386	.380	.556	.704	-1.321
24	.272	.517	.427	.372	.348	.590	.761	.593
25	-1.549	-1.369	.633	.340	.264	.620	.795	-1.605
26	.447	.285	-.357	.247	.113	.598	-1.996	.483
				$\delta_e=-30°$				
1	-.355	-.476	-1.827	-.392	-.304	-.549	-.706	-1.581
2	-.293	-.552	-2.038	-.412	-.439	-1.287	-1.287	-2.217
3	-.391	-.883	-3.044	-.529	-1.743	-1.745	-1.919	-2.272
4	-.581	-1.087	-2.085	-.824	-1.447	-1.806	-2.146	-2.082
5	-.687	-1.169	-1.298	-1.368	-1.206	-1.583	-1.994	-1.924
6	-.798	-1.109	-1.206	-1.208	-1.172	-1.451	-1.785	-1.831
7	-1.090	.353	.647	-1.016	.395	-1.391	-1.626	.540
8	-.846	.458	.468	.499	.403	.407	-1.555	.581
9	.090	.546	.762	.529	.411	.423	.437	.635
10	.162	.611	.782	.558	.358	.441	.445	.685
11	.168	.621	.659	.568	.259	.451	.480	.738
12	.174	.554	.603	.541	.138	.453	.502	.713
13	.164	-.746	-.990	.483	-.336	.431	.524	-2.682
14	.170	-.901	-.833	.352	-.348	.327	.536	-2.596
15	.220	-1.155	-1.262	-.289	-1.190	-1.902	.543	-2.588
16	.142	-1.399	-1.484	-.323	-1.917	-2.190	.494	.775
17	-.902	-1.260	-1.022	-.911	-1.447	-2.122	-2.261	.831
18	.381	-1.188	-.905	-1.531	-1.306	-1.944	-2.660	-2.901
19	-.683	.554	.643	-1.287	-1.277	-1.794	-2.472	-2.697
20	.331	.661	.708	-1.107	.383	-1.705	-2.300	.891
21	-.379	.720	-.395	.424	.383	.513	-2.779	-3.200
22	.267	.762	.776	.453	.425	.555	.632	-2.272
23	-1.463	.716	.673	.469	.415	.599	.676	-1.252
24	.253	.623	.466	.459	.374	.613	.747	.579
25	-1.537	-1.393	.766	.386	.269	.649	.779	-1.557
26	.457	.288	-.395	.281	.111	.621	-1.976	.489
				$\delta_e=-40°$				
1	-.422	-.521	-1.579	-.398	-.287	-.494	-.891	-1.681
2	-.395	-.589	-1.744	-.427	-.620	-1.227	-1.446	-2.192
3	-.448	-.924	-2.252	-.535	-1.584	-1.675	-1.865	-2.186
4	-.617	-1.028	-1.744	-.783	-1.285	-1.783	-2.004	-2.010
5	-.717	-1.050	-1.211	-1.314	-1.137	-1.572	-1.867	-1.879
6	-.800	-1.000	-1.125	-1.171	-1.110	-1.428	-1.723	-1.781
7	-1.063	.381	.642	-.994	.416	-1.367	-1.596	.534
8	-.831	.485	.507	.507	.428	.373	-1.531	.577
9	.083	.601	.767	.553	.430	.404	.428	.614
10	.151	.657	.781	.555	.369	.418	.438	.679
11	.173	.653	.552	.588	.275	.432	.475	.732
12	.183	.569	.446	.551	.141	.424	.509	.712
13	.185	-.699	-.951	.475	-.357	.400	.527	-2.554
14	.198	-.956	-.779	.340	-.508	.307	.533	-2.481
15	.251	-1.148	-1.178	-.304	-1.283	-1.831	.554	-2.423
16	.163	-1.255	-1.370	-.336	-1.691	-2.118	.501	.785
17	-.898	-1.118	-.945	-.851	-1.327	-2.068	-2.232	.830
18	.424	-1.056	-.879	-1.475	-1.231	-1.886	-2.469	-2.679
19	-.745	.609	.661	-1.249	-1.213	-1.747	-2.315	-2.530
20	.356	.697	.726	-1.070	.394	-1.673	-2.184	.900
21	-.481	.764	-.397	.431	.406	.482	-2.590	-2.937
22	.281	.796	.769	.451	.416	.516	.638	-2.155
23	-1.405	.768	.656	.475	.432	.552	.697	-1.217
24	.257	.657	.454	.453	.378	.586	.778	.579
25	-1.468	-1.319	.755	.382	.285	.604	.784	-1.521
26	.452	.285	-.393	.280	.135	.584	-1.893	.481

[redacted]

TABLE 38

Pressure coefficients on the left side fin. Standard tail configuration.

ψ=30°; α= 0°; δ_r=0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				δ_e= 40°				
1	-.026	.194	.272	.110	-.086	-.273	-.389	-.574
2	.033	.220	.240	.081	-.178	-.391	-.449	-.752
3	.035	.058	.067	.012	-.494	-.512	-.578	-1.030
4	-.045	-.102	-.150	-.093	-.561	-.791	-.768	-1.184
5	-.096	-.084	-.134	-.270	-.533	-.840	-.896	-1.096
6	-.084	-.114	-.173	-.311	-.514	-.805	-.977	-1.018
7	-.094	-.317	-.417	-.331	-.029	-.746	-.936	.230
8	-.116	-.381	-.396	-.209	-.008	.059	-.874	.276
9	-.279	-.595	-.724	-.185	.080	.102	.139	.340
10	-.342	-.820	-1.148	-.197	.139	.127	.151	.412
11	-.407	-.639	-1.736	-.193	.163	.189	.195	.506
12	-.462	-.555	-2.313	-.167	.151	.225	.230	.620
13	-.446	.327	.232	-.055	-.175	.262	.273	-1.027
14	-.363	.265	-.037	-.008	-.220	.285	.309	-1.731
15	-.312	.076	.043	-.012	-.363	-.617	.354	-1.889
16	-.440	-.154	-.138	-.026	-.622	-.822	.402	.471
17	-.096	-.124	-.159	-.177	-.690	-1.053	-.779	.631
18	-.589	-.186	-.205	-.380	-.657	-1.135	-1.077	-1.292
19	.006	-.301	-.433	-.439	-.633	-1.074	-1.482	-2.608
20	-.578	-.363	-.506	-.433	.008	-.994	-1.515	.652
21	.110	-.577	-.242	-.098	.029	.209	-1.275	-3.075
22	-.377	-.864	-.728	-.073	.075	.258	.348	-1.583
23	-.835	-1.044	-.717	-.061	.122	.305	.451	-.643
24	.361	-.916	-.563	.008	.186	.369	.542	.574
25	-.878	-.713	-.563	.069	.208	.438	.708	-.829
26	.322	.232	-.236	.104	.186	.508	-1.429	.455
				δ_e= 30°				
1	.021	.144	.233	.054	-.098	-.274	-.418	-.560
2	.086	.178	.257	.029	-.178	-.388	-.465	-.735
3	.082	.024	.121	-.014	-.510	-.513	-.586	-1.060
4	.006	-.132	-.152	-.128	-.582	-.821	-.816	-1.254
5	-.070	-.140	-.166	-.315	-.559	-.872	-.971	-1.165
6	-.092	-.176	-.204	-.356	-.539	-.825	-1.068	-1.071
7	-.117	-.283	-1.773	-.354	-.055	-.775	-1.016	.227
8	-.154	-.330	-.542	-.298	-.023	.052	-.945	.268
9	-.240	-.405	-2.271	-.278	.070	.099	.123	.332
10	-.201	-.409	-2.377	-.278	.135	.130	.139	.412
11	-.154	-.401	-2.883	-.263	.152	.194	.186	.499
12	-.137	-.364	-2.820	-.204	.143	.227	.223	.622
13	-.148	.243	.223	-.076	-.193	.262	.260	-1.014
14	-.158	.227	-.020	-.004	-.219	.293	.305	-1.792
15	-.232	.047	.113	-.043	-.355	-.610	.355	-2.156
16	-.250	-.198	-.142	-.091	-.650	-.847	.402	.462
17	-.119	-.180	-.190	-.212	-.721	-1.087	-.809	.623
18	-.260	-.235	-.239	-.424	-.680	-1.171	-1.111	-1.306
19	-.012	-.516	-.694	-.488	-.658	-1.097	-1.609	-2.970
20	-.254	-.455	-.812	-.473	-.006	-1.019	-1.600	.645
21	.104	-.581	-.233	-.144	.018	.221	-1.361	-3.169
22	-.250	-.680	-.877	-.115	.066	.256	.346	-1.758
23	-.857	-.623	-.745	-.086	.115	.309	.424	-.698
24	.363	-.555	-.528	-.014	.182	.373	.539	.572
25	-.912	-.745	-.836	.062	.195	.443	.721	-.888
26	.326	.245	-.235	.099	.182	.509	-1.506	.451
				δ_e= 20°				
1	.012	.054	.240	-.002	-.143	-.240	-.429	-.677
2	.068	.082	.275	-.010	-.196	-.296	-.499	-.917
3	.045	-.056	.110	-.056	-.635	-.428	-.669	-1.303
4	-.031	-.276	-.244	-.173	-.718	-.874	-.903	-1.483
5	-.133	-.256	-.293	-.442	-.641	-.955	-1.069	-1.358
6	-.196	-.304	-.285	-.456	-.633	-.879	-1.114	-1.263
7	-.196	-.208	-1.208	-.425	-.014	-.817	-1.048	.271
8	-.213	-.238	-.356	-.220	.018	.096	-.981	.323
9	-.037	-.302	-1.523	-.188	.093	.140	.170	.384
10	-.041	-.320	-1.562	-.188	.161	.168	.190	.471
11	-.055	-.290	-1.833	-.169	.181	.221	.225	.574
12	-.104	-.240	-1.760	-.113	.169	.255	.265	.693
13	-.162	.146	.114	.002	-.220	.279	.307	-1.228
14	-.188	.138	-.084	.054	-.232	.309	.352	-2.119
15	-.231	-.046	-.031	-.083	-.365	-.500	.392	-2.398
16	-.217	-.348	-.318	-.097	-.752	-.723	.440	.535
17	-.247	-.294	-.320	-.236	-.857	-1.123	-.840	.707
18	-.256	-.334	-.318	-.550	-.774	-1.266	-1.206	-1.622
19	-.047	-.420	-.485	-.575	-.768	-1.187	-1.684	-3.331
20	-.178	-.402	-.580	-.532	.022	-1.096	-1.613	.731
21	.041	-.460	-.244	-.093	.044	.242	-1.417	-3.701
22	-.096	-.486	-.566	-.063	.095	.281	.383	-1.998
23	-.980	-.420	-.477	-.020	.139	.328	.470	-.818
24	.350	-.350	-.350	.034	.202	.383	.570	.632
25	-1.033	-.854	-.576	.103	.208	.449	.750	-1.057
26	.325	.234	-.246	.137	.185	.515	-1.501	.501

TABLE 38 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

ψ=30°; α= 0°; δ_r=0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				δ_e= 10°				
1	.014	-.022	.265	-.053	-.182	-.337	-.465	-.673
2	.042	.000	.293	-.051	-.192	-.408	-.475	-.844
3	.002	-.144	.108	-.119	-.717	-.600	-.531	-1.363
4	-.106	-.431	-.428	-.233	-.889	-1.166	-.897	-1.760
5	-.241	-.340	-.444	-.609	-.753	-1.212	-1.272	-1.599
6	-.327	-.340	-.412	-.571	-.737	-1.091	-1.428	-1.469
7	-.263	-.132	-.532	-.520	.026	-1.024	-1.298	.281
8	-.271	-.148	-.193	-.107	.045	.095	-1.215	.325
9	.012	-.194	-.629	-.079	.117	.145	.160	.399
10	-.002	-.186	-.588	-.051	.172	.170	.168	.487
11	-.044	-.134	-.777	-.051	.186	.222	.213	.581
12	-.102	-.087	-.761	-.008	.164	.261	.247	.697
13	-.165	.022	-.042	.081	-.247	.295	.286	-1.180
14	-.197	.053	-.161	.111	-.253	.305	.335	-2.232
15	-.231	-.107	-.167	-.126	-.318	-.644	.379	-2.834
16	-.195	-.512	-.436	-.142	-.836	-.929	.430	.533
17	-.402	-.387	-.398	-.275	-1.032	-1.406	-.864	.711
18	-.219	-.368	-.416	-.713	-.893	-1.545	-1.093	-1.605
19	-.153	-.213	-.233	-.702	-.874	-1.418	-2.069	-4.293
20	-.159	-.233	-.275	-.638	.055	-1.333	-2.032	.721
21	-.010	-.249	-.231	-.016	.067	.251	-1.799	-3.854
22	-.078	-.253	-.277	.012	.107	.293	.371	-2.411
23	-1.106	-.178	-.315	.043	.164	.337	.448	-.948
24	.353	-.113	-.225	.085	.209	.410	.558	.639
25	-1.163	-.980	-.247	.140	.223	.467	.744	-1.214
26	.337	.243	-.237	.160	.180	.533	-1.840	.511
				δ_e= 0°				
1	.025	-.096	-.072	-.152	-.241	-.353	-.482	-.691
2	.010	-.128	-.118	-.138	-.245	-.329	-.498	-.825
3	-.057	-.283	-.323	-.152	-.671	-.383	-.538	-1.436
4	-.186	-.640	-.826	-.208	-1.327	-1.393	-1.000	-2.076
5	-.370	-.520	-.691	-.782	-.980	-1.535	-1.512	-1.857
6	-.481	-.492	-.667	-.784	-.941	-1.293	-1.651	-1.697
7	-.415	-.049	.130	-.649	.081	-1.220	-1.450	.309
8	-.407	-.053	-.030	.002	.097	.128	-1.353	.359
9	.022	-.051	.150	.036	.162	.170	.198	.428
10	.018	-.018	.216	.046	.203	.192	.212	.508
11	-.006	.026	.182	.062	.209	.246	.260	.612
12	-.072	.085	.206	.104	.168	.277	.298	.719
13	-.129	-.108	-.186	.166	-.302	.303	.333	-1.237
14	-.160	-.130	-.232	.182	-.312	.313	.373	-2.335
15	-.215	-.262	-.210	-.172	-.282	-.587	.421	-3.209
16	-.168	-.758	-.629	-.176	-.779	-.643	.456	.566
17	-.597	-.581	-.547	-.220	-1.452	-1.405	-.921	.735
18	-.133	-.537	-.513	-.826	-1.128	-1.896	-1.198	-1.793
19	-.284	-.039	-.078	-.952	-1.079	-1.711	-2.411	-5.185
20	-.096	-.002	-.058	-.794	.095	-1.547	-2.238	.747
21	-.082	.002	-.244	.062	.112	.267	-2.067	-4.086
22	-.049	.004	-.026	.086	.146	.303	.413	-2.841
23	-1.288	.055	-.022	.116	.183	.351	.498	-1.106
24	.364	.124	.010	.154	.229	.423	.609	.647
25	-1.356	-1.165	-.028	.196	.227	.471	.780	-1.380
26	.366	.256	-.238	.200	.185	.543	-1.948	.512
				δ_e= -10°				
		-.156	-.456	-.263	-.289	-.395	-.489	-.690
		-.211	-.664	-.255	-.293	-.379	-.515	-.816
		-.377	-1.352	-.273	-.782	-.296	-.444	-.830
		-.799	-1.580	-.281	-1.576	-1.471	-.529	-2.460
		-.852	-1.403	-.855	-1.135	-1.967	-1.374	-2.439
		-.775	-1.167	-1.205	-1.091	-1.556	-2.059	-2.158
		.024	.450	-.880	.147	-1.418	-1.832	.322
		.061	.100	.114	.160	.154	-1.608	.366
		.099	.558	.153	.210	.198	.218	.443
		.154	.688	.169	.240	.216	.234	.534
		.199	.754	.181	.232	.263	.277	.621
		.243	.800	.207	.182	.294	.305	.727
		-.247	-.401	.247	-.345	.315	.349	-1.219
		-.308	-.352	.235	-.349	.307	.382	-1.866
		-.454	-.521	-.253	-.279	-.636	.428	-4.383
		-.982	-.967	-.265	-.913	-.541	.457	.567
		-.986	-1.071	-.277	-1.669	-1.195	-.895	.735
		-.854	-.874	-.785	-1.269	-2.272	-1.117	-1.779
		.103	.155	-1.416	-1.222	-2.060	-2.236	-6.330
		.164	.193	-1.006	.143	-1.813	-2.800	.745
		.215	-.279	.133	.162	.276	-2.620	-4.103
		.227	.263	.157	.194	.319	.416	-3.658
		.274	.210	.185	.228	.370	.499	-1.379
		.331	.196	.207	.263	.426	.616	.652
		-1.430	.246	.231	.251	.481	.786	-1.668
		.262	-.279	.225	.180	.547	-2.325	.526

TABLE 38 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 0°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = -20°$				
1	-.064	-.262	-.972	-.382	-.343	-.425	-.510	-.683
2	-.080	-.280	-1.307	-.392	-.349	-.439	-.545	-.805
3	-.120	-.537	-2.394	-.414	-.575	-.359	-.504	-.783
4	-.246	-.984	-2.630	-.421	-2.018	-1.098	-.365	-2.301
5	-.413	-1.157	-1.827	-.879	-1.315	-2.068	-1.021	-2.683
6	-.655	-1.060	-1.844	-1.575	-1.263	-2.108	-2.279	-2.388
7	-.936	.111	.431	-1.103	.198	-1.631	-2.213	.325
8	-.838	.185	.209	.237	.214	.192	-1.850	.376
9	.024	.256	.612	.274	.257	.228	.250	.452
10	.054	.320	.760	.294	.273	.251	.256	.534
11	.064	.370	.970	.310	.251	.287	.301	.631
12	.068	.392	.969	.324	.180	.315	.330	.729
13	.046	-.408	-.648	.328	-.379	.331	.361	-1.217
14	.018	-.447	-.547	.280	-.381	.323	.398	-1.922
15	-.042	-.714	-.890	-.340	-.319	-.643	.439	-4.504
16	-.038	-1.221	-1.323	-.350	-.669	-.599	.467	.580
17	-.906	-1.312	-1.386	-.366	-2.114	-.874	-.904	.741
18	.130	-1.193	-1.244	-.732	-1.445	-2.048	-1.146	-1.799
19	-.389	.254	.374	-1.823	-1.381	-2.417	-1.729	-6.271
20	.112	.334	.441	-1.229	.190	-2.164	-3.232	.749
21	-.142	.406	-.293	.213	.206	.295	-3.070	-4.120
22	.078	.441	.541	.243	.242	.343	.430	-4.114
23	-1.699	.489	.457	.268	.263	.405	.510	-1.524
24	.343	.505	.360	.278	.281	.447	.619	.653
25	-2.064	-1.618	.502	.278	.255	.513	.779	-1.813
26	.393	.280	-.293	.256	.184	.559	-2.623	.526
				$\delta_e = -30°$				
1	-.201	-.460	-1.470	-.446	-.382	-.429	-.544	-.688
2	-.237	-.388	-1.839	-.458	-.402	-.446	-.572	-.813
3	-.281	-.667	-3.639	-.490	-.511	-.372	-.536	-.761
4	-.359	-1.118	-3.337	-.498	-2.267	-.981	-.428	-2.379
5	-.516	-1.251	-1.827	-.886	-1.481	-2.185	-.918	-2.795
6	-.735	-1.201	-1.974	-1.715	-1.366	-2.226	-2.257	-2.411
7	-1.052	.209	.494	-1.207	.263	-1.686	-2.480	.345
8	-.928	.305	.295	.349	.277	.238	-2.028	.388
9	.036	.394	.665	.384	.309	.273	.265	.455
10	.062	.476	.739	.402	.309	.290	.277	.534
11	.068	.510	.910	.418	.271	.326	.321	.631
12	.084	.512	.888	.420	.186	.343	.349	.718
13	.086	-.618	-.849	.398	-.412	.366	.384	-1.201
14	.078	-.606	-.733	.323	-.426	.333	.420	-1.877
15	.060	-.964	-1.253	-.378	-.384	-.639	.454	-4.718
16	.046	-1.426	-1.618	-.398	-.507	-.606	.476	.568
17	-.990	-1.500	-1.420	-.410	-2.473	-.743	-.938	.725
18	.245	-1.428	-1.263	-.697	-1.600	-2.187	-1.187	-1.807
19	-.476	.406	.504	-1.968	-1.491	-2.456	-1.741	-6.360
20	.197	.500	.572	-1.323	.242	-2.261	-3.369	.731
21	-.263	.582	-.333	.287	.253	.335	-3.361	-4.091
22	.129	.616	.697	.311	.277	.374	.444	-4.053
23	-1.809	.586	.606	.337	.297	.423	.526	-1.553
24	.339	.624	.462	.341	.303	.468	.639	.633
25	-2.185	-1.667	.643	.323	.283	.530	.787	-1.847
26	.396	.297	-.331	.285	.184	.579	-2.823	.500
				$\delta_e = -40°$				
1	-.458	-.621	-1.338	-.471	-.381	-.443	-.551	-.703
2	-.420	-.647	-1.686	-.481	-.369	-.433	-.575	-.832
3	-.477	-.932	-2.258	-.507	-.929	-.335	-.492	-.803
4	-.546	-1.030	-2.463	-.503	-1.758	-1.457	-.396	-2.593
5	-.642	-1.104	-1.431	-.936	-1.267	-2.196	-1.502	-2.532
6	-.788	-1.086	-1.334	-1.390	-1.212	-1.772	-2.488	-2.231
7	-1.045	.301	.561	-1.093	.326	-1.543	-2.033	.362
8	-.912	.413	.412	.455	.334	.261	-1.765	.405
9	.016	.523	.724	.483	.350	.291	.296	.470
10	.100	.607	.777	.503	.342	.307	.308	.557
11	.110	.639	.624	.515	.306	.339	.349	.651
12	.138	.611	.662	.515	.222	.357	.376	.734
13	.157	-.739	-.897	.471	-.399	.367	.408	-1.237
14	.163	-.992	-.771	.378	-.407	.341	.439	-1.884
15	.196	-1.325	-1.239	-.394	-.322	-.665	.469	-4.407
16	.159	-1.333	-1.441	-.410	-1.051	-.575	.482	.584
17	-.961	-1.335	-1.030	-.421	-1.853	-1.008	-.957	.750
18	.385	-1.283	-.851	-.831	-1.385	-2.457	-1.210	-1.875
19	-.695	.551	.581	-1.602	-1.336	-2.287	-2.251	-6.655
20	.308	.641	.640	-1.187	.287	-1.968	-3.182	.748
21	-.507	.715	-.328	.348	.297	.343	-2.929	-4.175
22	.212	.749	.765	.370	.322	.381	.461	-3.626
23	-1.603	.737	.714	.392	.330	.435	.547	-1.451
24	.352	.713	.561	.386	.334	.477	.651	.653
25	-1.756	-1.487	.700	.352	.305	.537	.796	-1.723
26	.426	.303	-.330	.300	.214	.585	-2.455	.526

[redacted]

TABLE 39

Pressure coefficients on the left side fin. Standard tail configuration.

ψ=30°; α= 10°; δ_r=0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				δ_e= 40°				
1	-.063	.196	.363	.280	.091	-.084	-.182	-.245
2	.076	.279	.447	.301	.046	-.142	-.197	-.282
3	.122	.403	.606	.299	-.006	-.149	-.232	-.332
4	.170	.270	.544	.289	-.238	-.153	-.242	-.398
5	.175	.344	.316	.233	-.371	-.123	-.251	-.492
6	.150	.449	.240	.083	-.335	-.333	-.259	-.718
7	.082	-.483	-1.038	.091	-.133	-.762	-.219	.052
8	.109	-.721	-.829	-.340	-.126	-.065	-1.068	.077
9	-.394	-.624	-1.629	-.313	-.057	-.023	-.015	.137
10	-.255	-.489	-2.559	-.338	.027	-.004	-.019	.208
11	-.101	-.559	-2.895	-.348	.078	.056	.025	.297
12	-.114	-.798	-3.314	-.317	.128	.103	.062	.471
13	-.154	.405	.312	-.206	-.006	.146	.106	-.454
14	-.190	.508	.063	-.122	-.030	.216	.137	-.641
15	-.425	.591	.570	.181	-.063	-.234	.209	-1.120
16	-1.543	.316	.519	.167	-.105	-.259	.248	.129
17	.177	.369	.300	.126	-.229	-.297	-.346	.365
18	-.312	.428	.236	.091	-.549	-.333	-.426	-.606
19	.242	-.549	-.669	-.179	-.486	-.364	-.549	-.736
20	-.208	-.728	-.787	-.186	-.116	-.318	-.799	.363
21	.107	-1.118	-.251	-.192	-.086	.038	-1.054	-.463
22	-.469	-.945	-1.122	-.177	-.053	.071	.118	-1.355
23	-.876	-.956	-1.006	-.161	-.002	.117	.168	-.886
24	.309	-.964	-.804	-.126	.065	.165	.282	.475
25	-.429	-.675	-.886	-.070	.130	.241	.485	-1.282
26	.179	.167	-.255	.027	.162	.352	-1.721	.376
				δ_e= 30°				
1	-.049	.086	.275	.159	.006	-.155	-.210	-.297
2	.058	.153	.338	.184	-.031	-.199	-.233	-.337
3	.066	.257	.462	.178	-.068	-.207	-.264	-.391
4	.111	.126	.437	.161	-.489	-.199	-.268	-.449
5	.123	.177	.201	.120	-.544	-.164	-.279	-.549
6	.060	.226	.139	-.124	-.491	-.493	-.291	-.844
7	.033	-.297	-1.631	-.082	-.093	-.870	-.222	.056
8	.014	-.352	-.580	-.302	-.074	-.043	-1.337	.092
9	-.232	-.377	-1.956	-.276	-.008	-.012	.012	.139
10	-.140	-.305	-2.265	-.288	.072	.004	.012	.220
11	-.070	-.383	-2.538	-.288	.128	.068	.058	.318
12	-.043	-.417	-2.658	-.239	.165	.118	.094	.478
13	-.070	.242	.271	-.131	-.074	.159	.129	-.507
14	-.121	.330	.017	-.053	-.083	.236	.171	-.713
15	-.222	.422	.458	.078	-.128	-.273	.239	-1.410
16	-.402	.340	.340	.065	-.134	-.308	.316	.291
17	.033	.214	.132	.027	-.450	-.348	-.382	.370
18	-.201	.234	.104	.004	-.703	-.369	-.457	-.669
19	.135	-.442	-.652	-.367	-.608	-.416	-.586	-.946
20	-.166	-.434	-.750	-.347	-.066	-.308	-.873	.387
21	.058	-.568	-.251	-.159	-.050	.044	-1.268	-.665
22	-.251	-.625	-.839	-.149	-.019	.089	.145	-1.680
23	-.981	-.585	-.671	-.135	.041	.133	.202	-1.158
24	.337	-.572	-.507	-.080	.115	.188	.291	.476
25	-.745	-.804	-.756	-.002	.153	.261	.516	-1.428
26	.209	.161	-.257	.061	.196	.362	-1.821	.380
				δ_e= 20°				
1	-.046	-.018	.218	.060	-.055	-.183	-.243	-.350
2	.008	.037	.292	.071	-.104	-.226	-.268	-.404
3	.022	.151	.458	.067	-.125	-.244	-.290	-.457
4	.056	.008	.764	.062	-.537	-.236	-.307	-.521
5	.082	-.018	.153	.048	-.651	-.191	-.320	-.631
6	-.026	.053	.042	-.373	-.594	-.567	-.320	-1.053
7	-.004	-.145	-1.026	-.275	-.076	-.947	-.230	.084
8	-.050	-.155	-.286	-.190	-.065	-.025	-1.535	.115
9	-.070	-.224	-1.290	-.187	.012	.014	.031	.168
10	-.036	-.226	-1.431	-.198	.069	.019	.025	.262
11	-.038	-.238	-1.623	-.183	.131	.074	.062	.363
12	-.030	-.222	-1.683	-.137	.153	.121	.104	.521
13	-.064	.126	.139	-.017	-.133	.166	.145	-.564
14	-.088	.191	-.048	.023	-.145	.226	.181	-.799
15	-.140	.263	.278	-.013	-.180	-.312	.245	-1.803
16	-.176	.061	.129	-.023	-.180	-.339	.330	.250
17	-.066	.002	-.054	-.054	-.482	-.378	-.413	.414
18	-.156	.055	-.034	-.058	-.786	-.402	-.473	-.758
19	.052	-.297	-.411	-.542	-.698	-.444	-.614	-1.240
20	-.116	-.301	-.494	-.508	-.049	-.283	-.913	.410
21	-.028	-.375	-.246	-.108	-.039	.057	-1.369	-.906
22	-.078	-.389	-.498	-.081	-.002	.097	.147	-2.111
23	-1.074	-.360	-.383	-.081	.043	.144	.207	-1.521
24	.323	-.318	-.268	-.035	.114	.209	.305	.527
25	-.838	-.884	-.504	.027	.169	.283	.533	-1.678
26	.212	.187	-.230	.102	.184	.384	-1.844	.412

TABLE 39 Continued

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 10°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 10°$				
1	.004	-.045	.230	-.055	-.116	-.229	-.280	-.344
2	.029	-.033	.234	-.028	-.137	-.276	-.302	-.396
3	.019	.039	.345	-.045	-.153	-.297	-.325	-.458
4	.025	-.081	.472	-.061	-.673	-.277	-.339	-.513
5	.052	-.177	-.185	-.043	-.781	-.218	-.346	-.625
6	-.089	-.126	-.218	-.669	-.714	-.645	-.356	-1.068
7	-.064	-.079	-.507	-.478	-.027	-1.073	-.270	.107
8	-.078	-.102	-.140	-.116	-.010	.015	-1.580	.128
9	.031	-.138	-.616	-.094	.050	.023	.033	.194
10	.025	-.138	-.659	-.087	.108	.040	.023	.268
11	.008	-.110	-.807	-.096	.162	.102	.068	.365
12	-.008	-.073	-.764	-.073	.186	.145	.095	.548
13	-.045	.026	-.027	.018	-.155	.187	.130	-.573
14	-.074	.049	-.150	.077	-.172	.243	.175	-.800
15	-.117	.110	.041	-.079	-.195	-.343	.249	-1.817
16	-.099	-.022	-.051	-.093	-.205	-.374	.265	.258
17	-.155	-.230	-.218	-.124	-.545	-.418	-.436	.425
18	-.117	-.163	-.170	-.116	-.905	-.449	-.502	-.753
19	-.027	-.147	-.226	-.795	-.770	-.484	-.646	-1.219
20	-.082	-.181	-.246	-.671	.021	-.299	-.934	.404
21	-.012	-.214	-.246	-.067	-.002	.075	-1.383	-.878
22	-.035	-.230	-.191	-.039	.027	.110	.144	-2.153
23	-1.124	-.163	-.275	-.016	.083	.156	.204	-1.559
24	.344	-.100	-.211	.018	.141	.220	.300	.534
25	-.932	-1.026	-.195	.075	.184	.291	.521	-1.705
26	.229	.198	-.250	.128	.197	.395	-1.893	.423
				$\delta_e = 0°$				
1	.042	-.055	-.026	-.121	-.160	-.234	-.303	-.344
2	.036	-.075	-.074	-.111	-.198	-.299	-.327	-.390
3	.002	-.083	-.153	-.135	-.214	-.299	-.362	-.447
4	-.013	-.103	-.137	-.137	-.312	-.281	-.374	-.515
5	-.034	-.437	-.773	-.101	-.978	-.212	-.380	-.620
6	-.153	-.397	-.655	-1.008	-.858	-.657	-.380	-1.072
7	-.252	-.028	.094	-.700	.036	-1.105	-.293	.121
8	-.276	-.043	-.006	-.026	.042	.030	-1.822	.143
9	.034	-.032	.108	.012	.100	.061	.065	.207
10	.028	.006	.145	.020	.152	.071	.057	.268
11	.004	.032	.112	.022	.196	.133	.103	.390
12	.002	.079		.048	.218	.168	.121	.553
13	-.020	-.077	-.143	.111	-.208	.200	.160	-.557
14	-.085	-.079	-.211	.155	-.222	.267	.198	-.785
15	-.153	-.081	-.104	-.123	-.246	-.345	.267	-1.769
16	-.073	-.099	-.086	-.149	-.244	-.368	.360	.243
17	-.224	-.593	-.719	-.183	-.661	-.414	-.459	.421
18	-.056	-.466	-.528	-.183	-1.092	-.438	-.543	-.734
19	-.083	-.049	-.080	-.954	-.896	-.487	-.699	-1.189
20	-.032	-.020	-.082	-.825	.044	-.327	-1.032	.429
21	-.038	-.002	-.243	.004	.054	.105	-1.570	-.819
22	-.012	-.016	-.030	.030	.076	.141	.170	-2.135
23	-1.228	.026	-.120	.044	.122	.178	.228	-1.563
24	.365	.115	-.036	.082	.174	.236	.329	.551
25	-1.179	-1.071		.127		.307	.547	-1.710
26	.260	.204	-.231	.175	.232	.404	-1.986	.441
				$\delta_e = -10°$				
1	.044	-.072	-.360	-.224	-.209	-.273	-.343	-.390
2	.022	-.113	-.481	-.220	-.238	-.333	-.347	-.429
3	-.014	-.185	-.666	-.232	-.252	-.339	-.386	-.491
4	-.056	-.205	-.859	-.251	-.825	-.325	-.394	-.563
5	-.090	-1.125	-2.078	-.204	-1.154	-.240	-.406	-.712
6	-.143	-.924	-1.622	-1.455	-.976	-.729	-.406	-1.366
7	-.703	.000	.384	-1.000	.077	-1.228	-.321	.151
8	-.482	.050	.078	.078	.089	.064	-1.984	.179
9	.028	.091	.447	.106	.134	.088	.083	.231
10	.044	.137	.537	.130	.181	.090	.087	.314
11	.032	.185	.738	.132	.213	.156	.133	.408
12	.044	.252	.817	.164	.215	.182	.152	.583
13	.042	-.135	-.336	.200	-.250	.232	.190	-.610
14	.014	-.189	-.312	.230	-.264	.287	.238	-.855
15	-.110	-.280	-.382	-.204	-.287	-.379	.301	-2.171
16	-.038	-.294	-.370	-.218	-.281	-.407	.378	.282
17	-.219	-1.316	-1.553	-.257	-.656	-.443	-.475	.459
18	.038	-1.060	-1.145	-.242	-1.236	-.479	-.562	-.799
19	-.118	.074	.127	-1.184	-.988	-.523	-.725	-1.485
20	.040	.139	.175	-1.058	.073	-.405	-1.069	.447
21	-.030	.193	-.266	.076	.083	.118	-1.640	-1.066
22	.028	.199	.245	.106	.108	.152	.196	-2.600
23	-1.283	.280	.155	.124	.142	.194	.255	-1.769
24	.382	.338	.177	.144	.193	.248	.354	.579
25	-1.159	-1.284	.209	.182	.220	.331	.588	-1.922
26	.275	.233	-.268	.224	.219	.417	-2.053	.465

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12	.109	.637	.749	.461	.265	.237	.219	.604
13	.127	-.687	-.779	.447	-.331	.271	.247	-.674
14	.139	-.835	-.604	.407	-.343	.320	.290	-.954
15	.119	-.962	-.990	-.337	-.357	-.409	.343	-2.648
16	.131	-1.279	-1.211	-.359	-.331	-.441	.414	.320
17	-.976	-1.418	-1.213	-.389	-.898	-.468	-.531	.494
18	.333	-1.361	-.821	-.357	-1.518	-.484	-.629	-.880
	-.712	.502	.518	-1.367	-1.191	-.591	-.797	-1.838

TABLE 39 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi=30°$; $\alpha=10°$; $\delta_r=0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e=-20°$				
1	-.032	-.128	-.746	-.315	-.270	-.297	-.368	-.414
2	-.018	-.138	-1.009	-.313	-.293	-.350	-.378	-.470
3	-.026	-.264	-1.589	-.345	-.299	-.352	-.408	-.530
4	-.074	-.332	-1.829	-.371	-.787	-.325	-.420	-.606
5	-.138	-1.874	-3.370	-.304	-1.350	-.265	-.418	-.774
6	-.210	-1.304	-3.063	-1.778	-1.085	-.733	-.398	-1.548
7	-1.218	.084	.384	-1.327	.144	-1.283	-.420	.156
8	-.701	.148	.232	.192	.140	.099	-2.010	.180
9	.038	.224	.535	.222	.181	.113	.111	.236
10	.062	.306	.630	.240	.211	.125	.107	.344
11	.084	.344	.990	.252	.240	.176	.154	.432
12	.106	.426	1.033	.260	.230	.202	.170	.580
13	.130	-.242	-.541	.292	-.281	.240	.220	-.644
14	.110	-.262	-.447	.280	-.301	.293	.242	-.916
15	-.016	-.422	-.677	-.268	-.319	-.380	.311	-2.402
16	.066	-.476	-.780	-.292	-.309	-.416	.390	.306
17	-.319	-2.160	-2.256	-.321	-.602	-.448	-.509	.468
18	.174	-1.778	-1.927	-.308	-1.374	-.477	-.598	-.836
19	-.168	.220	.339	-1.349	-1.063	-.535	-.758	-1.642
20	.128	.292	.402	-1.288	.118	-.438	-1.123	.458
21	-.050	.366	-.276	.149	.122	.125	-1.745	-1.174
22	.088	.414	.510	.169	.146	.168	.202	-2.846
23	-1.317	.472	.415	.192	.175	.218	.273	-1.782
24	.395	.534	.337	.208	.224	.265	.380	.582
25	-1.327	-1.318	.465	.234	.234	.327	.608	-1.978
26	.311	.238	-.285	.240	.236	.426	-2.172	.472
				$\delta_e=-30°$				
1	-.143	-.285	-1.053	-.386	-.306	-.331	-.366	-.440
2	-.161	-.347	-1.004	-.400	-.332	-.378	-.380	-.490
3	-.185	-.475	-2.509	-.430	-.330	-.384	-.404	-.546
4	-.221	-.784	-3.037	-.465	-1.036	-.350	-.419	-.629
5	-.342	-1.356	-2.204	-.368	-1.518	-.277	-.425	-.795
6	-.549	-1.416	-2.444	-1.933	-1.236	-.901	-.408	-1.703
7	-1.056	.160	.438	-1.444	.192	-1.386	-.374	.177
8	-1.064	.255	.266	.297	.188	.111	-1.988	.189
9	.014	.337	.575	.329	.232	.143	.129	.257
10	.058	.436	.656	.352	.258	.147	.117	.331
11	.076	.491	.896	.349	.264	.198	.153	.430
12	.109	.527	.982	.372	.246	.234	.177	.600
13	.123	-.469	-.677	.380	-.320	.261	.197	-.659
14	.105	-.525	-.564	.335	-.338	.305	.233	-.930
15	.046	-.667	-1.020	-.327	-.354	-.414	.298	-2.580
16	.060	-.998	-1.196	-.329	-.330	-.438	.380	.313
17	-.706	-1.929	-1.814	-.374	-.868	-.473	-.501	.474
18	.233	-1.939	-1.401	-.347	-1.524	-.497	-.579	-.865
19	-.320	.343	.448	-1.432	-1.192	-.554	-.738	-1.791
20	.183	.440	.528	-1.448	.154	-.691	-1.070	.476
21	-.211	.517	-.313	.222	.154	.143	-1.652	-1.299
22	.119	.558	.634	.230	.174	.186	.201	-3.048
23	-1.390	.610	.591	.251	.198	.226	.262	-1.709
24	.396	.653	.491	.259	.238	.283	.356	.574
25	-1.312	-1.529	.575	.259	.264	.345	.590	-1.954
26	.310	.267	-.311	.275	.248	.440	-2.034	.472
				$\delta_e=-40°$				
1	-.341	-.538	-1.199	-.411	-.311	-.330	-.391	-.444
2	-.349	-.598	-1.006	-.419	-.339	-.377	-.408	-.498
3	-.468	-.922	-1.199	-.453	-.325	-.381	-.434	-.560
4	-.554	-1.167	-2.659	-.485	-1.056	-.352	-.440	-.640
5	-.601	-1.333	-1.398	-.387	-1.532	-.279	-.426	-.816
6	-.766	-1.339	-1.361	-1.902	-1.237	-.939	-.379	-1.726
7	-1.349	.237	.520	-1.469	.255	-1.401	-.623	.186
8	-1.173	.355	.359	.407	.249	.162	-2.065	.212
9	-.002	.466	.649	.433	.269	.174	.174	.264
10	.054	.568	.735	.455	.285	.176	.158	.342
11	.077	.624	.627	.465	.291	.221	.189	.450
12	.109	.637	.749	.461	.265	.237	.219	.604
13	.127	-.687	-.779	.447	-.331	.271	.247	-.674
14	.139	-.835	-.604	.407	-.343	.320	.290	-.954
15	.119	-.962	-.990	-.337	-.357	-.409	.343	-2.648
16	.131	-1.279	-1.211	-.359	-.331	-.441	.414	.320
17	-.976	-1.418	-1.213	-.389	-.898	-.468	-.531	.494
18	.333	-1.361	-.821	-.357	-1.518	-.484	-.629	-.880
19	-.712	.502	.518	-1.367	-1.191	-.591	-.797	-1.838
20	.262	.590	.586	-1.543	.205	-.753	-1.199	.484
21	-.411	.665	-.325	.291	.201	.172	-1.941	-1.352
22	.157	.719	.693	.315	.213	.204	.241	-3.104
23	-1.435	.759	.715	.323	.233	.247	.302	-1.730
24	.391	.775	.624	.319	.265	.292	.408	.588
25	.088	.110	-.761	-.223	-.090	-.076	-.105	.123
26	-.084	-.088	-.290	-.247	-.073	-.040	.857	-.026

TABLE 40

Pressure coefficients on the left side fin. Standard tail configuration.

$\psi = 30°$; $\alpha = 20°$; $\delta_r = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				$\delta_e = 40°$				
1	.016	.245	.477	.355	.182	.072	.018	.002
2	.133	.329	.535	.381	.159	.046	.022	-.004
3	.148	.430	.620	.398	.116	.040	.014	.000
4	.177	.478	.688	.396	.127	.056	.022	.028
5	.191	.570	.867	.387	.141	.078	.024	.051
6	.234	.633	.998	.343	.149	.104	.050	.117
7	.131	-.386	-.795	.320	-.137	.126	.079	-.113
8	.172	-.558	-.630	-.284	-.178	-.094	.107	-.131
9	-.230	-.570	-1.284	-.288	-.171	-.124	-.089	-.111
10	-.166	-.474	-2.481	-.318	-.145	-.118	-.113	-.113
11	-.121	-.946	-3.664	-.357	-.139	-.102	-.109	-.091
12	-.160	-2.118	-4.946	-.391	-.208	-.090	-.101	-.083
13	-.195	.492	.451	-.361	.110	-.060	-.099	-.020
14	-.320	.548	.115	-.487	.084	-.070	-.093	.028
15	-1.306	.604	.618	.258	.071	.030	-.057	.846
16	-1.659	.647	.686	.249	.065	.028	-.034	-.121
17	.300	.713	.751	.237	.088	.032	-.004	-.131
18	-.407	.769	.696	.211	.116	.052	-.006	.024
19	.253	-.448	-.533	.181	.133	.086	.016	.820
20	-.267	-.576	-.632	.201	-.124	.124	.091	-.095
21	.158	-.912	-.288	-.176	-.141	-.134	.867	.820
22	-.337	-.968	-1.062	-.193	-.149	-.100	-.097	.857
23	.136	-1.090	-1.103	-.245	-.145	-.092	-.127	-.034
24	-.086	-1.725	-1.211	-.245	-.110	-.092	-.097	-.069
25	-1.534	-1.568	.633	.325	.281	.358	.629	-1.952
26	.325	.273	-.327	.309	.265	.458	-2.294	.484
				$\delta_e = 30°$				
1	.025	.127	.383	.235	.111	-.008	-.024	-.030
2	.105	.183	.441	.262	.097	-.029	-.022	-.040
3	.105	.271	.504	.276	.064	-.033	-.024	-.038
4	.111	.310	.599	.274	.080	-.014	-.016	-.010
5	.117	.382	.893	.268	.091	.008	-.010	.016
6	.146	.454	.998	.225	.103	.031	.016	.077
7	.039	-.251	-1.180	.221	-.095	.053	.046	-.133
8	.078	-.277	-.601	-.245	-.091	-.080	.065	-.147
9	-.099	-.320	-1.660	-.245	-.082	-.137	-.075	-.131
10	-.066	-.353	-1.960	-.268	-.107	-.143	-.093	-.137
11	-.045	-.544	-2.583	-.284	-.105	-.090	-.085	-.115
12	-.070	-.901	-3.198	-.294	-.095	-.082	-.081	-.093
13	-.101	.333	.360	-.266	.052	-.068	-.087	-.048
14	-.179	.382	.069	-.266	.038	-.055	-.087	-.004
15	-.491	.435	.510	.176	.028	-.045	-.044	.837
16	-1.634	.462	.557	.170	.032	-.043	-.020	-.135
17	.172	.530	.563	.156	.046	-.039	-.040	-.157
18	-.255	.585	.518	.122	.072	-.023	-.038	-.006
19	.152	-.310	-.504	.112	.095	.010	-.032	.815
20	-.152	-.363	-.611	.130	-.087	.047	.022	-.093
21	.092	-.501	-.304	-.148	-.089	-.137	.865	.825
22	-.152	-.622	-.816	-.146	-.080	-.117	-.075	.843
23	.055	-.719	-.771	-.176	-.085	-.121	-.075	-.050
24	-.053	-1.000	-.751	-.172	-.085	-.080	-.079	-.077
25	.037	.043	-.652	-.156	-.072	-.066	-.071	.093
26	-.060	-.064	-.298	-.156	-.072	-.023	.837	-.042
				$\delta_e = 20°$				
1	.040	.060	.309	.139	.062	-.014	-.057	-.039
2	.085	.101	.373	.165	.028	-.040	-.055	-.041
3	.073	.169	.469	.161	.012	-.040	-.057	-.041
4	.083	.190	.609	.157	.028	-.016	-.053	-.010
5	.083	.246	.793	.145	.034	.006	-.041	.014
6	.093	.316	.842	.125	.040	.030	-.025	.075
7	-.002	-.027	-.834	.083	-.060	.050	.012	-.099
8	.024	-.066	-.211	-.157	-.070	-.085	.031	-.122
9	.036	-.155	-1.090	-.145	-.062	-.103	-.082	-.101
10	.028	-.211	-1.182	-.171	-.064	-.111	-.106	-.103
11	.022	-.331	-1.600	-.179	-.046	-.089	-.082	-.085
12	-.016	-.442	-1.988	-.190	-.042	-.069	-.094	-.049
13	-.032	.213	.221	-.153	.014	-.046	-.076	-.049
14	-.081	.258	-.020	-.153	-.002	-.038	-.061	-.008
15	-.218	.298	.332	.095	-.014	-.036	-.027	.824
16	-.599	.415	.375	.095	-.010	-.042	.012	-.120
17	.089	.360	.320	.081	.008	-.034	-.067	-.132
18	-.139	.409	.279	.060	.030	-.012	-.063	-.012
19	.075	-.136	-.332	.048	.046	.022	-.055	.811
20	-.071	-.186	-.395	.069	-.052	.054	-.014	-.085
21	.048	-.285	-.287	-.081	-.056	-.113	.865	.819
22	-.004	-.382	-.459	-.077	-.060	-.097	-.088	.846
23	.038	-.438	-.455	-.113	-.058	-.099	-.090	-.065
24	-.014	-.550	-.412	-.113	-.032	-.085	-.088	-.043
25	.024	.043	-.408	-.095	-.012	-.050	-.041	.081
26	-.028	-.035	-.293	-.075	-.006	-.006	.804	-.008

TABLE 40 Concluded

Pressure coefficients on the left side fin. Standard tail configuration.

ψ=30°; α= 20°; δ_r=0°

Tube No.	Manometer Number 1	2	3	4	5	6	7	8
				δ_e= 10°				
1	.081	.033	.354	.048	.010	-.036	-.067	-.048
2	.081	.037	.364	.074	-.020	-.060	-.063	-.050
3	.063	.074	.370	.064	-.035	-.050	-.067	-.052
4	.063	.068	.433	.060	-.018	-.030	-.057	-.036
5	.045	.086	.504	.044	-.006	-.004	-.049	-.012
6	.065	.127	.510	.028	.008	.026	-.022	.030
7	-.035	.010	-.391	.028	-.041	.050	.008	-.065
8	-.016	-.021	-.097	-.076	-.072	-.054	.030	-.075
9	.098	-.082	-.532	-.064	-.059	-.064	-.067	-.058
10	.079	-.094	-.597	-.054	-.049	-.086	-.089	-.046
11	.053	-.154	-.820	-.087	-.025	-.070	-.075	-.022
12	.037	-.187	-1.038	-.103	-.016	-.048	-.077	.026
13	.018	.101	.022	-.040	-.037	-.026	-.065	-.060
14	-.010	.115	-.148	-.038	-.043	-.022	-.063	-.038
15	-.106	.138	.109	.032	-.049	-.036	-.026	.823
16	-.130	.133	.089	.030	-.041	-.040	.002	-.073
17	.020	.146	.059	.016	-.027	-.032	-.069	-.065
18	-.069	.179	.026	.006	.004	-.012	-.071	-.040
19	.026	-.064	-.182	.006	.020	.016	-.065	.810
20	-.028	-.111	-.190	.020	-.041	.054	-.012	-.032
21	.041	-.150	-.281	-.024	-.059	-.066	.862	.821
22	.043	-.201	-.200	-.020	-.064	-.072	-.087	.833
23	.014	-.218	-.176	-.032	-.066	-.066	-.096	-.083
24	.004	-.242	-.154	-.034	-.027	-.062	-.089	.040
25	.002	.002	-.172	-.038	-.004	-.036	-.041	.038
26	-.016	-.010	-.283	-.024	.000	.004	.823	.063
				δ_e= 0°				
1	.108	.028	.093	-.051	-.037	-.086	-.096	-.072
2	.102	.002	.045	-.028	-.061	-.109	-.088	-.086
3	.074	-.002	-.030	-.043	-.074	-.109	-.098	-.078
4	.056	-.012	-.083	-.049	-.049	-.082	-.088	-.062
5	.042	-.044	-.105	-.045	-.043	-.064	-.080	-.032
6	.040	-.040	-.122	-.037	-.039	-.043	-.048	.010
7	-.038	.028	.093	-.055	.004	-.029	-.024	-.062
8	-.044	.016	.010	-.019	-.029	-.041	-.004	-.078
9	.106	.004	.061	.004	-.025	-.058	-.036	-.060
10	.084	.008	.126	-.008	-.004	-.056	-.068	-.046
11	.060	-.008	-.022	-.018	.018	-.039	-.050	-.022
12	.046	.002	-.112	-.034	.027	-.023	-.054	.020
13	.040	.020	-.122	-.024	-.067	.006	-.040	-.084
14	.032	.000	-.233	.000	-.082	.035	-.026	-.054
15	-.074	-.006	-.037	-.041	-.086	-.099	.008	.802
16	-.044	-.002	-.041	-.041	-.078	-.107	.044	-.078
17	-.012	-.046	-.014	-.053	-.045	-.101	-.092	-.070
18	-.004	-.056	-.043	-.049	-.035	-.082	-.084	-.054
19	.006	.018	-.024	-.047	-.025	-.068	-.094	.788
20	.010	.010	-.024	-.043	-.014	-.039	-.048	-.040
21	.040	.008	-.282	.004	-.025	-.066	.859	.810
22	.048	.000	-.026	.006	-.041	-.058	-.066	.810
23	.010	.002	-.108	-.016	-.037	-.053	-.074	-.110
24	.032	.006	-.079	-.024	-.004	-.029	-.052	.046
25	.004	-.002	-.016	-.008	.027	-.002	.002	.006
26	.010	.022	-.288	.014	.045	.062	.773	.066
				δ_e= -10°				
1	.111	.016	-.256	-.122	-.073	-.091	-.108	-.082
2	.089	-.020	-.357	-.106	-.081	-.115	-.100	-.074
3	.058	-.072	-.478	-.126	-.085	-.115	-.106	-.084
4	.029	-.124	-.518	-.132	-.071	-.087	-.090	-.066
5	.006	-.170	-.579	-.154	-.067	-.059	-.082	-.050
6	.006	-.222	-.694	-.148	-.065	-.036	-.051	-.016
7	-.122	.048	.345	-.142	.059	-.022	-.031	-.044
8	-.293	.062	.085	.080	.030	-.006	.000	-.058
9	.087	.072	.395	.098	.020	-.030	-.035	-.036
10	.074	.106	.603	.092	.047	-.036	-.059	-.032
11	.054	.106	.538	.092	.063	-.020	-.041	.002
12	.049	.152	.583	.070	.073	-.004	-.051	.064
13	.049	-.026	-.319	.074	-.077	.024	-.041	-.090
14	.045	-.092	-.313	.074	-.071	.053	-.029	-.072
15	-.072	-.142	-.240	-.084	-.069	-.089	.002	.796
16	.002	-.190	-.278	-.090	-.071	-.085	.037	-.058
17	-.082	-.236	-.260	-.104	-.059	-.087	-.098	-.046
18	.041	-.299	-.308	-.110	-.047	-.073	-.098	-.064
19	-.008	.104	.157	-.110	-.030	-.044	-.092	.800
20	.052	.132	.163	-.092	.032	-.020	-.049	-.006
21	.037	.150	-.292	.072	.020	-.046	.853	.812
22	.049	.136	.181	.074	.004	-.038	-.071	.808
23	.008	.170	.121	.050	-.004	-.038	-.078	-.112
24	.056	.212	.119	.034	.024	-.010	-.073	.086
26	.031	.050	-.300	.062	.081	.079	.780	.090
25	.006	-.010	.190	.040	.061	.020	-.014	-.006

[redacted]

TABLE 41

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	-.496	-.496	.563	-.202	.012	.207	.390
2	-.636	-.547	.587	-.204	.065	.053	.480
3	-.674	-.549	.611	-.202	.136	.312	.573
4	-.686	-.543	.597	-.183	.198	.363	.680
5	-.605	-.478	.387	-.149	.192	.415	.784
6	-.650	-.384	-.089	-.088	.079	.464	.865
7	-.607	-.731	-.744	-.306	-.194	.499	.897
8	-.775	-.824	-.774	-.762	-.755	.493	-.778
9	-.798	-.814	-.778	-.802	-.773	.076	-.770
10	-.812	-.814	-.760	-.782	-.743	-.776	-.752
11	-.761	-.767	-.742	-.770	-.725	-.789	-.737
12	-.723	-.739	-.728	-.758	-.719	-.768	-.725
13	.140	-.457	-.470	-.749	-.711	-.754	-.715
14	.488	-.457	-.542	-.735	-.709	-.745	-.710
15	.595	-.484	-.546	.401	.623	-.729	-.458
16	-.263	-.476	-.581	.483	.763	-.717	.745
17	-.632	-.345	-.708	.548	.951	-.713	.452
18	-.822	-.720	-.748	.621	.913	-.717	-.764
19	-.791	-.802	-.736	.668	-.765	-1.004	-.774
20	-.727	-.800	-.772	-.758	-.749	-.912	-.464
21	.666	-.757	-.744	-.737	-.741	-.908	-.456
22	.810	-.729	-.732	-.727	-.735	-.957	-.456
23	.905	.325	-.468	-.715	.798	-1.074	-.462
24	-.802	.110	-.778	-.703	-.743	-1.033	-.460
25	-.804	-.747	-.462	.635	.735	-.713	-.458
26	-.836	-.735	-.462	-.739	-.700	-.446	-.454
				$\delta_r = 0°$			
1	-.444	-.321	.814	-.049	.115	.271	.431
2	-.527	-.317	.838	-.027	.178	.107	.524
3	-.550	-.312	.812	-.024	.235	.374	.612
4	-.548	-.298	.802	.000	.285	.428	.709
5	-.477	-.214	.729	.018	.265	.471	.801
6	-.477	-.141	.335	.076	.097	.514	.884
7	-.605	-.726	-.754	-.155	-.209	.537	.890
8	-.743	-.810	-.752	-.808	-.771	.519	-.807
9	-.749	-.786	-.764	-.825	-.787	.066	-.795
10	-.743	-.782	-.750	-.814	-.781	-.771	-.791
11	-.713	-.766	-.727	-.804	-.777	-.781	-.787
12	-.670	-.748	-.719	-.812	-.767	-.771	-.776
13	.371	-.210	-.335	-.829	-.769	-.764	-.772
14	.589	-.133	-.461	-.818	-.771	-.758	-.772
15	.699	-.131	-.473	.465	.658	-.748	-.469
16	-.079	-.105	-.519	.549	.794	-.750	.758
17	-.692	-.056	-.515	.614	.935	-.754	.443
18	-.778	-.722	-.840	.673	.893	-.760	-.791
19	-.741	-.794	-.776	.725	-.765	-1.010	-.793
20	-.678	-.766	-.794	-.771	-.771	-.909	-.461
21	.658	-.730	-.766	-.765	-.775	-.909	-.467
22	.827	-.728	-.745	-.761	-.777	-.944	-.470
23	.908	.399	-.461	-.755	.800	-1.081	-.469
24	-.778	.115	-.461	-.747	-.769	-.969	-.467
25	-.784	-.778	-.461	.641	.723	-.748	-.470
26	-.809	-.774	-.461	-.757	-.739	-.442	-.467
				$\delta_r = 10°$			
1	-.369	-.129	.899	.186	.243	.346	.493
2	-.435	-.111	.977	.221	.300	.164	.571
3	-.445	-.093	.996	.231	.362	.442	.658
4	-.435	-.073	1.000	.241	.383	.487	.751
5	-.344	.010	.936	.249	.344	.526	.831
6	-.342	.032	.602	.258	.111	.560	.893
7	-.606	-.727	-.789	-.016	-.241	.579	.885
8	-.726	-.818	-.780	-.823	-.802	.544	-.799
9	-.728	-.796	-.764	-.837	-.834	.057	-.791
10	-.724	-.794	-.760	-.829	-.828	-.771	-.799
11	-.687	-.774	-.733	-.829	-.820	-.787	-.789
12	-.656	-.750	-.717	-.839	-.810	-.773	-.783
13	.369	-.010	.133	-.854	-.816	-.761	-.779
14	.612	.137	.039	-.878	-.820	-.755	-.781
15	.707	.172	.057	.532	.706	-.751	-.471
16	.072	.198	-.019	.604	.822	-.742	.767
17	-.695	.137	-.074	.664	.921	-.746	.437
18	-.761	-.711	-.799	.707	.881	-.757	-.805
19	-.715	-.796	-.799	.746	-.818	-.912	-.795
20	-.658	-.782	-.784	-.790	-.812	-.855	-.475
21	.676	-.731	-.760	-.783	-.806	-.877	-.477
22	.833	-.721	-.741	-.775	-.810	-.908	-.473
23	.891	.420	-.474	-.769	.844	-1.035	-.477
24	-.771	.103	-.474	-.765	-.798	-.932	-.473
25	-.765	-.792	-.476	.639	.719	-.736	-.477
26	-.806	-.790	-.474	-.771	-.775	-.450	-.473

[redacted]

TABLE 41 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	-.337	.065	.630	.380	.357	.438	.547
2	-.368	.099	.801	.428	.421	.231	.623
3	-.356	.127	.876	.436	.474	.522	.703
4	-.339	.145	.939	.444	.480	.562	.782
5	-.234	.218	.943	.436	.419	.602	.858
6	-.216	.179	.720	.416	.146	.633	.910
7	-.677	-.754	-.778	.127	-.216	.639	.882
8	-.752	-.829	-.776	-.838	-.772	.588	-.808
9	-.756	-.815	-.758	-.859	-.795	.038	-.804
10	-.747	-.813	-.752	-.846	-.788	-.791	-.794
11	-.705	-.794	-.719	-.846	-.780	-.801	-.782
12	-.671	-.778	-.699	-.859	-.774	-.791	-.780
13	.384	.175	.404	-.887	-.780	-.779	-.772
14	.671	.381	.280	-.903	-.786	-.777	-.768
15	.758	.423	.439	.588	.733	-.769	-.463
16	.204	.450	.348	.650	.848	-.767	.806
17	-.772	.286	.268	.703	.930	-.767	.445
18	-.784	-.744	-.801	.747	.873	-.763	-.788
19	-.735	-.813	-.758	.770	-.778	-.853	-.778
20	-.671	-.802	-.758	-.816	-.766	-.835	-.461
21	.717	-.754	-.744	-.806	-.764	-.849	-.467
22	.863	-.732	-.722	-.800	-.770	-.890	-.465
23	.891	.474	-.461	-.798	.871	-1.006	-.465
24	-.794	.127	-.465	-.796	-.772	-.902	-.461
25	-.784	-.794	-.463	.636	.713	-.747	-.469
26	-.818	-.794	-.463	-.796	-.737	-.452	-.465
				$\delta_r = 30°$			
1	-.216	.260	.673	.537	.448	.498	.587
2	-.200	.328	.824	.583	.512	.281	.659
3	-.214	.352	.851	.598	.560	.582	.738
4	-.194	.374	.887	.593	.546	.618	.808
5	-.079	.418	.840	.577	.458	.649	.869
6	-.040	.324	.539	.539	.151	.671	.905
7	-.669	-.714	-.812	.049	-.242	.667	.853
8	-.739	-.768	-.812	-.821	-.780	.606	-.790
9	-.741	-.764	-.782	-.829	-.810	.010	-.786
10	-.737	-.766	-.774	-.823	-.804	-.785	-.788
11	-.701	-.762	-.749	-.833	-.796	-.797	-.782
12	-.673	-.738	-.721	-.846	-.794	-.787	-.782
13	.358	.336	.564	-.874	-.802	-.779	-.782
14	.711	.596	.434	-.896	-.802	-.773	-.768
15	.770	.642	.634	.638	.770	-.767	-.472
16	.349	.656	.541	.701	.867	-.767	.806
17	-.784	.388	.453	.744	.942	-.769	.421
18	-.772	-.720	-.820	.774	.863	-.771	-.786
19	-.735	-.762	-.800	.787	-.794	-.831	-.778
20	-.671	-.752	-.772	-.783	-.782	-.819	-.470
21	.741	-.732	-.756	-.778	-.780	-.829	-.470
22	.877	-.696	-.733	-.770	-.790	-.849	-.474
23	.881	.508	-.483	-.766	.875	-.948	-.472
24	-.784	.126	-.481	-.758	-.778	-.865	-.474
25	-.780	-.772	-.485	.636	.708	-.751	-.476
26	-.794	-.766	-.479	-.760	-.748	-.466	-.474
				$\delta_r = 40°$			
1	-.115	.443	.717	.641	.547	.563	.633
2	-.109	.520	.819	.675	.597	.343	.703
3	-.091	.545	.855	.692	.641	.639	.769
4	-.068	.561	.871	.683	.611	.671	.835
5	.048	.585	.781	.665	.515	.696	.886
6	.068	.409	.522	.603	.160	.710	.918
7	-.718	-.737	-.793	.220	-.251	.698	.847
8	-.746	-.781	-.787	-.806	-.774	.621	-.779
9	-.746	-.781	-.753	-.815	-.812	-.012	-.777
10	-.748	-.777	-.753	-.819	-.818	-.772	-.777
11	-.706	-.771	-.727	-.829	-.812	-.792	-.775
12	-.674	-.725	-.709	-.849	-.804	-.790	-.769
13	.457	.496	.564	-.877	-.810	-.786	-.765
14	.791	.769	.416	-.913	-.814	-.784	-.755
15	.841	.802	.665	.690	.794	-.772	-.472
16	.427	.808	.584	.734	.890	-.768	.827
17	-.833	.429	.498	.776	.946	-.770	.448
18	-.779	-.735	-.853	.798	.846	-.774	-.769
19	-.742	-.769	-.785	.804	-.774	-.812	-.761
20	-.694	-.765	-.749	-.778	-.772	-.806	-.476
21	.765	-.721	-.729	-.776	-.780	-.833	-.470
22	.885	-.676	-.713	-.774	-.784	-.845	-.474
23	.857	.540	-.476	-.768	.862	-.917	-.474
24	-.789	.113	-.476	-.760	-.756	-.841	-.470
25	-.789	-.798	-.478	.645	.699	-.750	-.470
26	-.805	-.791	-.472	-.746	-.754	-.470	-.470

TABLE 42

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.597	-.683	-1.205	-.548	-.139	.098	.316
2	-.751	-.922	-1.585	-.718	-.153	-.029	.416
3	-.789	-.936	-1.642	-.762	-.127	.178	.502
4	-.789	-.954	-1.663	-.744	-.061	.219	.592
5	-.812	-.890	-1.484	-.673	-.041	.258	.698
6	-.857	-.866	-1.472	-.528	-.120	.309	.796
7	-.577	-.655	-.640	-.468	-.339	.342	.838
8	-.824	-.808	-.795	-.708	-.704	.344	-.746
9	-.779	-.780	-.732	-.782	-.780	-.070	-.762
10	-.771	-.772	-.730	-.766	-.757	-.740	-.756
11	-.791	-.747	-.685	-.750	-.731	-.775	-.738
12	-.781	-.715	-.713	-.734	-.706	-.777	-.732
13	-.528	-.749	-1.106	-.716	-.690	-.760	-.726
14	-.814	-1.138	-1.628	-.681	-.688	-.750	-.718
15	-.814	-1.367	-2.240	.323	.576	-.734	-.418
16	-.873	-1.403	-2.506	.393	.706	-.719	.696
17	-.391	-.930	-2.280	.460	.837	-.705	.414
18	-.800	-.609	-.537	.526	.873	-.693	-.746
19	-.785	-.784	-.661	.583	-.763	-1.008	-.730
20	-.726	-.784	-.728	-.772	-.737	-.969	-.418
21	.581	-.741	-.695	-.750	-.729	-.914	-.418
22	.785	-.695	-.695	-.736	-.729	-.924	-.424
23	.885	.150	-.402	-.726	.794	-.965	-.428
24	-.769	-.068	-.407	-.708	-.727	-.998	-.420
25	-.759	-.701	-.411	.667	.616	-.693	-.426
26	-.779	-.687	-.411	-.714	-.696	-.418	-.424
				$\delta_r = -30°$			
1	-.440	-.596	-.760	-.498	-.097	.135	.333
2	-.706	-.812	-1.094	-.634	-.097	.004	.432
3	-.732	-.856	-1.102	-.666	-.061	.219	.509
4	-.763	-.862	-1.134	-.650	.000	.258	.606
5	-.769	-.798	-1.110	-.583	.014	.296	.713
6	-.787	-.736	-1.168	-.437	-.091	.346	.812
7	-.485	-.616	-.659	-.411	-.320	.372	.844
8	-.746	-.764	-.790	-.715	-.706	.356	-.721
9	-.746	-.752	-.735	-.779	-.757	-.068	-.717
10	-.755	-.740	-.737	-.759	-.737	-.726	-.723
11	-.748	-.696	-.691	-.751	-.698	-.746	-.705
12	-.720	-.664	-.655	-.727	-.678	-.744	-.693
13	-.422	-.616	-1.064	-.698	-.660	-.728	-.683
14	-.659	-.996	-1.078	-.662	-.648	-.708	-.677
15	-.742	-1.162	-1.347	.342	.603	-.684	-.414
16	-.635	-1.192	-1.212	.419	.723	-.666	.699
17	-.426	-.792	-1.068	.480	.844	-.652	.426
18	-.767	-.586	-.565	.545	.872	-.656	-.719
19	-.746	-.742	-.629	.597	-.743	-.958	-.711
20	-.702	-.750	-.719	-.767	-.725	-.893	-.414
21	.586	-.702	-.703	-.745	-.717	-.855	-.414
22	.785	-.648	-.671	-.731	-.719	-.869	-.416
23	.874	.180	-.421	-.719	.794	-.905	-.414
24	-.740	-.044	-.417	-.702	-.723	-.976	-.414
25	-.730	-.666	-.419	.672	.632	-.654	-.420
26	-.738	-.646	-.415	-.725	-.664	-.408	-.420
				$\delta_r = -20°$			
1	-.373	-.496	-.078	-.317	-.030	.168	.371
2	-.647	-.659	-.287	-.394	-.002	.025	.466
3	-.683	-.689	-.293	-.407	.042	.264	.546
4	-.699	-.691	-.281	-.394	.082	.303	.637
5	-.667	-.653	-.201	-.358	.072	.346	.737
6	-.719	-.580	-.653	-.274	-.064	.387	.813
7	-.468	-.633	-.689	-.402	-.316	.407	.839
8	-.733	-.763	-.757	-.709	-.710	.376	-.719
9	-.739	-.751	-.745	-.772	-.748	-.102	-.715
10	-.733	-.733	-.737	-.752	-.730	-.791	-.729
11	-.701	-.679	-.695	-.736	-.698	-.810	-.717
12	-.627	-.665	-.667	-.711	-.682	-.802	-.707
13	-.143	-.522	-.649	-.683	-.666	-.787	-.695
14	-.171	-.685	-.669	-.665	-.668	-.773	-.673
15	-.351	-.793	-.733	.380	.614	-.751	-.416
16	-.331	-.811	-.725	.455	.734	-.738	.691
17	-.426	-.610	-.713	.512	.853	-.726	.412
18	-.763	-.602	-.624	.565	.861	-.720	-.729
19	-.727	-.747	-.647	.618	-.738	-.996	-.733
20	-.679	-.737	-.733	-.748	-.720	-.908	-.416
21	.616	-.691	-.703	-.734	-.712	-.914	-.416
22	.813	-.647	-.667	-.717	-.720	-.941	-.420
23	.880	.221	-.436	-.705	.811	-1.031	-.418
24	-.743	-.044	-.440	-.689	-.720	-1.020	-.416
25	-.743	-.671	-.436	.669	.624	-.716	-.420
26	-.763	-.663	-.428	-.724	-.664	-.448	-.418

TABLE 42 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	-.355	-.394	.655	-.156	.035	.223	.410
2	-.607	-.508	.596	-.191	.074	.074	.509
3	-.635	-.533	.598	-.199	.119	.315	.582
4	-.631	-.533	.606	-.187	.151	.357	.667
5	-.577	-.486	.420	-.164	.119	.392	.754
6	-.613	-.415	-.157	-.118	-.070	.430	.832
7	-.477	-.659	-.727	-.367	-.360	.452	.838
8	-.752	-.791	-.757	-.753	-.771	.406	-.760
9	-.750	-.774	-.761	-.799	-.793	-.080	-.756
10	-.739	-.762	-.745	-.791	-.775	-.759	-.745
11	-.687	-.722	-.717	-.779	-.753	-.769	-.731
12	-.639	-.705	-.699	-.769	-.738	-.765	-.723
13	.329	-.370	-.454	-.751	-.730	-.741	-.715
14	.499	-.409	-.546	-.736	-.730	-.735	-.713
15	.539	-.470	-.518	.428	.648	-.719	-.422
16	-.250	-.488	-.544	.497	.767	-.711	.735
17	-.511	-.398	-.635	.552	.875	-.707	.420
18	-.782	-.654	-.715	.596	.863	-.701	-.747
19	-.727	-.766	-.709	.635	-.791	-.950	-.745
20	-.651	-.768	-.751	-.775	-.771	-.865	-.412
21	.625	-.703	-.713	-.763	-.763	-.867	-.424
22	.816	-.685	-.689	-.751	-.777	-.888	-.424
23	.864	.256	-.444	-.742	.838	-.978	-.428
24	-.772	-.055	-.440	-.728	-.769	-.962	-.422
25	-.768	-.732	-.444	.663	.626	-.687	-.430
26	-.778	-.711	-.442	-.751	-.724	-.426	-.420
				$\delta_r = 0°$			
1	-.300	-.212	.849	-.008	.155	.279	.437
2	-.539	-.295	.891	-.012	.198	.129	.531
3	-.563	-.311	.841	-.024	.241	.378	.604
4	-.561	-.313	.819	-.016	.252	.412	.684
5	-.492	-.255	.702	-.006	.202	.446	.757
6	-.510	-.214	.250	.022	-.039	.473	.825
7	-.484	-.659	-.770	-.137	-.368	.479	.804
8	-.765	-.824	-.792	-.842	-.767	.422	-.800
9	-.778	-.806	-.792	-.879	-.800	-.113	-.800
10	-.755	-.792	-.774	-.865	-.791	-.772	-.804
11	-.702	-.754	-.740	-.846	-.781	-.786	-.792
12	-.663	-.739	-.728	-.850	-.775	-.774	-.794
13	.380	-.137	-.333	-.865	-.771	-.766	-.794
14	.631	-.081	-.486	-.865	-.779	-.762	-.790
15	.741	-.131	-.458	.479	.673	-.754	-.439
16	-.145	-.137	-.512	.543	.777	-.754	.724
17	-.588	-.156	-.522	.598	.933	-.756	.369
18	-.820	-.659	-.817	.636	.840	-.752	-.806
19	-.747	-.794	-.758	.659	-.785	-.937	-.796
20	-.661	-.790	-.871	-.816	-.773	-.871	-.441
21	.655	-.747	-.770	-.798	-.773	-.877	-.437
22	.843	-.721	-.752	-.800	-.779	-.893	-.443
23	.865	.297	-.442	-.800	.812	-1.032	-.441
24	-.818	-.069	-.442	-.800	-.779	-.943	-.441
25	-.808	-.792	-.442	.653	.613	-.733	-.441
26	-.818	-.794	-.438	-.792	-.750	-.430	-.441
				$\delta_r = 10°$			
1	-.262	-.026	.941	.230	.255	.384	.500
2	-.466	-.085	1.006	.238	.301	.196	.593
3	-.486	-.085	1.008	.226	.335	.471	.660
4	-.492	-.080	.996	.218	.323	.506	.735
5	-.399	-.026	.893	.218	.248	.529	.808
6	-.391	-.046	.502	.206	-.050	.551	.850
7	-.532	-.698	-.816	-.308	-.413	.535	.800
8	-.804	-.867	-.850	-.861	-.824	.465	-.868
9	-.829	-.857	-.836	-.905	-.866	-.169	-.872
10	-.821	-.835	-.818	-.883	-.852	-.863	-.872
11	-.742	-.783	-.773	-.871	-.850	-.886	-.850
12	-.683	-.769	-.748	-.871	-.838	-.880	-.846
13	.365	.050	.135	-.881	-.842	-.861	-.846
14	.641	.191	.029	-.913	-.844	-.851	-.842
15	.734	.169	.061	.532	.705	-.843	-.447
16	-.006	.167	-.031	.591	.804	-.837	.749
17	-.657	.038	-.102	.627	.936	-.839	.368
18	-.881	-.684	-.793	.661	.826	-.839	-.874
19	-.796	-.827	-.822	.673	-.846	-.931	-.858
20	-.690	-.843	-.842	-.853	-.832	-.892	-.451
21	.683	-.783	-.811	-.837	-.824	-.900	-.449
22	.865	-.746	-.785	-.831	-.834	-.918	-.453
23	.849	.338	-.449	-.821	.812	-.967	-.455
24	-.889	-.062	-.441	-.825	-.842	-.967	-.447
25	-.885	-.837	-.439	.643	.603	-.818	-.447
26	-.883	-.831	-.439	-.833	-.810	-.439	-.447

TABLE 42 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	-.197	.172	.745	.413	.374	.449	.539
2	-.349	.134	.862	.442	.423	.260	.632
3	-.367	.136	.876	.438	.453	.533	.695
4	-.361	.136	.936	.425	.421	.565	.758
5	-.267	.172	.874	.405	.321	.579	.813
6	-.257	.085	.531	.361	-.024	.598	.858
7	-.584	-.738	-.842	-.141	-.421	.579	.793
8	-.789	-.872	-.900	-.867	-.841	.489	-.896
9	-.817	-.864	-.860	-.960	-.894	-.191	-.894
10	-.803	-.850	-.832	-.925	-.874	-.865	-.886
11	-.729	-.819	-.794	-.903	-.866	-.889	-.870
12	-.675	-.805	-.764	-.911	-.854	-.887	-.868
13	.398	.213	.427	-.935	-.862	-.865	-.868
14	.691	.438	.311	-.954	-.866	-.855	-.866
15	.763	.432	.443	.607	.746	-.843	-.447
16	.124	.416	.329	.657	.837	-.841	.762
17	-.729	.162	.226	.694	.947	-.841	.368
18	-.863	-.748	-.832	.720	.815	-.841	-.880
19	-.779	-.848	-.848	.726	-.882	-.911	-.872
20	-.679	-.848	-.846	-.901	-.862	-.887	-.449
21	.711	-.799	-.812	-.881	-.856	-.895	-.451
22	.884	-.755	-.796	-.867	-.866	-.905	-.447
23	.849	.375	-.459	-.861	.837	-.926	-.447
24	-.886	-.075	-.457	-.859	-.860	-.942	-.447
25	-.878	-.844	-.455	.639	.596	-.825	-.449
26	-.873	-.842	-.455	-.877	-.831	-.435	-.449
				$\delta_r = 30°$			
1	-.115	.362	.708	.568	.488	.511	.602
2	-.226	.347	.865	.584	.530	.308	.695
3	-.236	.349	.851	.594	.557	.600	.755
4	-.226	.352	.865	.578	.496	.618	.809
5	-.137	.354	.745	.539	.370	.640	.857
6	-.135	.184	.335	.471	-.032	.646	.876
7	-.642	-.772	-.871	-.105	-.460	.612	.779
8	-.786	-.905	-.961	-.865	-.840	.501	-.914
9	-.810	-.897	-.898	-.933	-.905	-.235	-.924
10	-.804	-.887	-.878	-.909	-.889	-.887	-.912
11	-.731	-.867	-.841	-.905	-.874	-.926	-.894
12	-.681	-.851	-.804	-.921	-.870	-.920	-.886
13	.422	.356	.580	-.949	-.885	-.897	-.888
14	.754	.648	.451	-.958	-.885	-.891	-.894
15	.794	.644	.610	.661	.789	-.879	-.464
16	.228	.618	.506	.705	.868	-.875	.789
17	-.792	.224	.386	.731	.919	-.877	.361
18	-.846	-.792	-.857	.752	.796	-.875	-.916
19	-.776	-.875	-.892	.743	-.897	-.928	-.890
20	-.687	-.891	-.884	-.893	-.870	-.920	-.466
21	.727	-.838	-.859	-.875	-.860	-.922	-.466
22	.893	-.808	-.831	-.865	-.874	-.924	-.468
23	.828	.412	-.471	-.863	.866	-.944	-.470
24	-.885	-.097	-.471	-.863	-.872	-.952	-.470
25	-.881	-.893	-.469	.642	.571	-.861	-.470
26	-.869	-.893	-.469	-.863	-.852	-.453	-.464
				$\delta_r = 40°$			
1	-.008	.537	.737	.660	.555	.576	.643
2	-.090	.543	.827	.680	.615	.360	.730
3	-.090	.547	.851	.688	.629	.660	.778
4	-.090	.541	.853	.670	.547	.678	.827
5	.000	.511	.705	.624	.417	.684	.857
6	.004	.282	.367	.524	-.038	.676	.867
7	-.697	-.775	-.882	-.152	-.487	.640	.756
8	-.782	-.865	-.916	-.880	-.838	.515	-.893
9	-.790	-.857	-.857	-.942	-.898	-.251	-.905
10	-.790	-.857	-.855	-.928	-.902	-.847	-.891
11	-.725	-.855	-.813	-.928	-.902	-.882	-.879
12	-.693	-.839	-.787	-.940	-.902	-.886	-.879
13	.447	.499	.556	-.958	-.902	-.868	-.881
14	.814	.809	.424	-.974	-.902	-.866	-.881
15	.832	.801	.651	.702	.808	-.857	-.464
16	.325	.763	.564	.738	.874	-.845	.790
17	-.842	.264	.426	.764	.910	-.857	.363
18	-.824	-.801	-1.000	.774	.772	-.859	-.891
19	-.770	-.849	-.890	.750	-.882	-.878	-.877
20	-.701	-.849	-.857	-.898	-.866	-.892	-.460
21	.745	-.827	-.825	-.888	-.862	-.892	-.466
22	.908	-.777	-.797	-.886	-.874	-.886	-.466
23	.816	.425	-.468	-.880	.832	-.892	-.468
24	-.870	-.091	-.470	-.880	-.864	-.892	-.468
25	-.872	-.875	-.470	.632	.557	-.837	-.468
26	-.862	-.881	-.466	-.866	-.854	-.458	-.468

TABLE 43

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.009	-.343	-.898	-.324	-.004	.190	.373
2	-.517	-.720	-1.441	-.591	-.010	.106	.512
3	-.665	-.804	-1.486	-.655	-.046	.290	.553
4	-.684	-.850	-1.536	-.667	-.017	.298	.625
5	-.672	-.787	-1.389	-.604	-.038	.321	.692
6	-.777	-.777	-1.324	-.472	-.193	.342	.757
7	.063	-.278	-.505	-.439	-.411	.344	.755
8	-.606	-.701	-.732	-.635	-.698	.292	-.746
9	-.718	-.737	-.697	-.737	-.732	-.232	-.755
10	-.703	-.731	-.690	-.727	-.748	-.739	-.736
11	-.653	-.665	-.613	-.710	-.694	-.760	-.713
12	-.682	-.653	-.590	-.680	-.656	-.768	-.698
13	-.138	-.404	-.750	-.647	-.621	-.752	-.688
14	-.638	-.888	-1.391	-.593	-.606	-.727	-.675
15	-.663	-1.192	-1.969	.394	.669	-.691	-.338
16	-.744	-1.290	-2.277	.439	.750	-.662	.685
17	.299	-.796	-2.173	.474	.874	-.639	.382
18	-.725	-.118	-.276	.511	.803	-.624	-.744
19	-.674	-.651	-.495	.540	-.757	-.837	-.744
20	-.665	-.747	-.663	-.749	-.727	-.783	-.338
21	.595	-.678	-.617	-.729	-.706	-.785	-.342
22	.822	-.608	-.576	-.708	-.715	-.800	-.348
23	.830	.110	-.347	-.692	.816	-.893	-.344
24	-.722	-.181	-.347	-.669	-.740	-.950	-.342
25	-.722	-.648	-.347	.680	.507	-.601	-.342
26	-.723	-.619	-.349	-.733	-.639	-.347	-.338
				$\delta_r = -30°$			
1	.077	-.258	-.439	-.256	.023	.228	.395
2	-.471	-.634	-.819	-.463	.043	.139	.539
3	-.617	-.721	-.934	-.521	.021	.324	.587
4	-.682	-.765	-.973	-.537	.039	.336	.645
5	-.667	-.715	-1.006	-.496	.010	.359	.706
6	-.732	-.636	-1.043	-.377	-.162	.380	.770
7	.117	-.239	-.530	-.390	-.395	.378	.754
8	-.542	-.661	-.750	-.665	-.708	.320	-.775
9	-.693	-.707	-.695	-.752	-.749	-.187	-.774
10	-.722	-.724	-.695	-.740	-.766	-.722	-.749
11	-.665	-.649	-.612	-.729	-.696	-.734	-.716
12	-.628	-.601	-.546	-.696	-.650	-.730	-.699
13	-.148	-.295	-.715	-.658	-.609	-.720	-.685
14	-.352	-.728	-.837	-.587	-.596	-.691	-.672
15	-.586	-.988	-1.117	.417	.675	-.651	-.340
16	-.548	-1.075	-1.097	.462	.760	-.622	.691
17	.226	-.678	-.953	.502	.882	-.598	.380
18	-.716	-.064	-.287	.540	.809	-.579	-.766
19	-.709	-.622	-.429	.563	-.766	-.799	-.775
20	-.617	-.728	-.664	-.758	-.735	-.747	-.338
21	.600	-.651	-.631	-.725	-.712	-.745	-.340
22	.837	-.570	-.575	-.694	-.712	-.768	-.345
23	.830	.152	-.328	-.671	.814	-.857	-.344
24	-.768	-.160	-.328	-.654	-.752	-.927	-.342
25	-.770	-.622	-.326	.687	.518	-.554	-.342
26	-.772	-.590	-.324	-.742	-.629	-.319	-.342
				$\delta_r = -20°$			
1	.044	-.203	.222	-.110	.085	.257	.421
2	-.414	-.503	.024	-.256	.123	.161	.558
3	-.563	-.595	-.057	-.303	.110	.368	.606
4	-.644	-.647	-.055	-.309	.106	.373	.669
5	-.600	-.626	-.173	-.290	.054	.389	.737
6	-.602	-.544	-.578	-.237	-.164	.406	.788
7	.052	-.255	-.545	-.378	-.416	.402	.754
8	-.520	-.698	-.778	-.703	-.750	.333	-.823
9	-.687	-.772	-.771	-.814	-.802	-.230	-.821
10	-.745	-.795	-.751	-.810	-.805	-.783	-.800
11	-.654	-.698	-.675	-.779	-.709	-.803	-.758
12	-.528	-.628	-.608	-.724	-.665	-.793	-.735
13	-.046	-.238	-.367	-.667	-.636	-.774	-.717
14	.044	-.476	-.471	-.599	-.626	-.731	-.700
15	-.141	-.684	-.610	.446	.701	-.685	-.327
16	-.280	-.774	-.631	.491	.778	-.660	.700
17	.066	-.589	-.624	.530	.877	-.640	.369
18	-.731	-.096	-.273	.566	.792	-.627	-.817
19	-.723	-.680	-.445	.575	-.815	-.799	-.833
20	-.565	-.797	-.745	-.804	-.780	-.778	-.335
21	.613	-.743	-.669	-.769	-.761	-.781	-.335
22	.839	-.630	-.639	-.740	-.778	-.822	-.335
23	.826	.173	-.333	-.710	.827	-.915	-.333
24	-.783	-.183	-.333	-.691	-.805	-.990	-.335
25	-.783	-.698	-.333	.665	.503	-.605	-.335
26	-.781	-.671	-.331	-.796	-.655	-.321	-.331

[redacted]

TABLE 43 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.052	-.079	.690	.017	.166	.318	.447
2	-.341	-.326	.684	-.093	.223	.207	.593
3	-.506	-.397	.613	-.117	.213	.427	.638
4	-.588	-.440	.581	-.132	.193	.437	.695
5	-.511	-.413	.419	-.126	.119	.454	.749
6	-.500	-.355	-.126	-.101	-.158	.468	.782
7	.013	-.203	-.638	-.311	-.461	.450	.732
8	-.504	-.702	-.870	-.783	-.809	.359	-.959
9	-.711	-.812	-.897	-.955	-.898	-.275	-.953
10	-.789	-.845	-.854	-.971	-.893	-.908	-.922
11	-.648	-.680	-.713	-.917	-.781	-.932	-.879
12	-.515	-.579	-.648	-.841	-.742	-.932	-.852
13	.176	-.118	-.217	-.786	-.717	-.904	-.835
14	.644	-.190	-.405	-.730	-.709	-.848	-.802
15	.651	-.339	-.468	.499	.734	-.799	-.335
16	-.172	-.413	-.498	.546	.809	-.768	.696
17	.036	-.357	-.551	.573	.883	-.749	.323
18	-.822	-.039	-.403	.604	.770	-.731	-.953
19	-.785	-.665	-.619	.602	-.947	-.912	-.955
20	-.552	-.862	-.868	-.932	-.910	-.903	-.335
21	.630	-.781	-.763	-.893	-.871	-.908	-.335
22	.854	-.599	-.694	-.849	-.883	-.949	-.337
23	.799	.211	-.354	-.817	.826	-1.055	-.337
24	-.929	-.192	-.352	-.792	-.945	-1.127	-.337
25	-.927	-.762	-.352	.647	.490	-.696	-.337
26	-.939	-.740	-.352	-.936	-.740	-.320	-.337
				$\delta_r = 0°$			
1	.094	.060	.852	.152	.242	.360	.487
2	-.281	-.129	.880	.082	.315	.253	.639
3	-.448	-.202	.823	.049	.301	.484	.687
4	-.534	-.240	.784	.033	.251	.488	.728
5	-.444	-.215	.637	.023	.158	.500	.779
6	-.432	-.202	.146	.023	-.206	.506	.802
7	-.014	-.237	-.709	-.219	-.576	.477	.711
8	-.526	-.763	-.994	-.816	-.885	.360	-1.115
9	-.773	-.890	-1.016	-1.078	-1.059	-.356	-1.118
10	-.857	-.917	-.959	-1.096	-1.040	-1.014	-1.082
11	-.699	-.754	-.786	-1.004	-.933	-1.049	-1.012
12	-.576	-.648	-.718	-.938	-.899	-1.053	-.973
13	.400	.040	-.210	-.918	-.879	-1.018	-.951
14	.647	.098	-.431	-.910	-.871	-.953	-.918
15	.731	-.025	-.417	.566	.762	-.907	-.340
16	-.129	-.090	-.456	.596	.828	-.881	.720
17	-.054	-.179	-.468	.621	.897	-.858	.270
18	-.970	-.098	-.728	.637	.725	-.842	-1.140
19	-.888	-.721	-.835	.623	-1.137	-.981	-1.196
20	-.627	-.967	-1.052	-1.061	-1.079	-.988	-.340
21	.645	-.862	-.862	-1.012	-1.036	-.998	-.344
22	.884	-.679	-.784	-.955	-1.028	-1.053	-.344
23	.775	.244	-.346	-.924	.824	-1.187	-.346
24	-1.137	-.246	-.344	-.902	-1.147	-1.348	-.346
25	-1.135	-.875	-.344	.623	.448	-.823	-.346
26	-1.116	-.860	-.336	-1.088	-.907	-.331	-.344
				$\delta_r = 10°$			
1	.151	.255	.964	.352	.350	.432	.529
2	-.141	.086	1.010	.311	.425	.299	.685
3	-.353	.024	.992	.277	.403	.556	.725
4	-.461	-.018	.950	.261	.333	.560	.762
5	-.365	-.016	.810	.218	.209	.564	.792
6	-.304	-.071	.371	.178	-.225	.558	.802
7	-.022	-.282	-.701	-.196	-.642	.519	.673
8	-.569	-.810	-1.156	-.838	-.914	.380	-1.323
9	-.863	-.988	-1.214	-1.248	-1.174	-.444	-1.325
10	-.994	-1.051	-1.160	-1.327	-1.229	-1.198	-1.293
11	-.847	-.878	-.922	-1.253	-1.045	-1.257	-1.206
12	-.702	-.755	-.832	-1.121	-1.002	-1.275	-1.149
13	.247	.176	.238	-1.050	-.969	-1.250	-1.121
14	.627	.376	.058	-1.042	-.959	-1.174	-1.093
15	.663	.269	.092	.626	.806	-1.101	-.370
16	.006	.202	-.018	.655	.847	-1.063	.709
17	-.122	-.041	-.102	.673	.885	-1.036	.202
18	-1.112	-.220	-.814	.683	.677	-1.010	-1.347
19	-1.069	-.769	-.960	.651	-1.268	-1.121	-1.418
20	-.708	-1.108	-1.170	-1.279	-1.194	-1.135	-.376
21	.669	-.976	-1.036	-1.216	-1.129	-1.164	-.374
22	.894	-.784	-.918	-1.137	-1.117	-1.190	-.372
23	.735	.284	-.371	-1.085	.818	-1.313	-.372
24	-1.308	-.286	-.371	-1.053	-1.270	-1.634	-.372
25	-1.316	-1.008	-.371	.578	.413	-.992	-.372
26	-1.253	-.982	-.367	-1.311	-1.023	-.366	-.372

TABLE 43 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	.202	.399	.837	.512	.434	.484	.564
2	-.128	.258	.927	.494	.515	.352	.721
3	-.295	.196	.901	.467	.487	.613	.752
4	-.427	.155	.913	.429	.406	.621	.786
5	-.355	.129	.766	.380	.248	.609	.804
6	-.291	.004	.244	.306	-.275	.599	.794
7	-.096	-.411	-.798	-.247	-.752	.549	.650
8	-.619	-.883	-1.183	-.918	-1.067	.381	-1.287
9	-.918	-1.089	-1.270	-1.325	-1.263	-.512	-1.299
10	-1.104	-1.200	-1.278	-1.431	-1.400	-1.233	-1.263
11	-.970	-1.022	-1.040	-1.392	-1.192	-1.257	-1.196
12	-.747	-.867	-.937	-1.235	-1.147	-1.292	-1.149
13	.377	.274	.498	-1.147	-1.115	-1.294	-1.130
14	.711	.577	.351	-1.141	-1.075	-1.215	-1.110
15	.727	.476	.446	.673	.830	-1.128	-.377
16	.038	.401	.290	.696	.865	-1.091	.672
17	-.246	.024	.153	.706	.855	-1.071	.228
18	-1.164	-.427	-.825	.700	.636	-1.061	-1.297
19	-1.194	-.843	-.998	.665	-1.335	-1.126	-1.363
20	-.772	-1.208	-1.254	-1.318	-1.273	-1.136	-.379
21	.659	-1.048	-1.133	-1.271	-1.214	-1.152	-.383
22	.920	-.863	-1.014	-1.190	-1.178	-1.172	-.385
23	.719	.313	-.401	-1.157	.782	-1.253	-.383
24	-1.345	-.383	-.395	-1.131	-1.352	-1.498	-.379
25	-1.345	-1.127	-.393	.565	.356	-1.045	-.381
26	-1.275	-1.103	-.371	-1.312	-1.154	-.372	-.381
				$\delta_r = 30°$			
1	.237	.545	.806	.624	.511	.532	.592
2	-.063	.444	.901	.626	.600	.392	.764
3	-.196	.396	.846	.602	.581	.670	.792
4	-.283	.352	.852	.569	.460	.668	.814
5	-.204	.301	.642	.501	.287	.660	.822
6	-.162	.087	.174	.388	-.266	.644	.802
7	-.211	-.568	-.852	-.215	-.757	.578	.632
8	-.702	-.954	-1.231	-.928	-.969	.394	-1.305
9	-.921	-1.115	-1.231	-1.308	-1.206	-.558	-1.323
10	-1.045	-1.198	-1.188	-1.378	-1.309	-1.228	-1.323
11	-.915	-1.044	-1.004	-1.300	-1.151	-1.258	-1.251
12	-.725	-.937	-.919	-1.195	-1.115	-1.302	-1.218
13	.342	.370	.599	-1.161	-1.093	-1.312	-1.202
14	.767	.743	.476	-1.149	-1.085	-1.240	-1.186
15	.739	.667	.607	.712	.850	-1.178	-.438
16	.138	.578	.462	.734	.880	-1.146	.669
17	-.391	.061	.328	.736	.849	-1.132	.236
18	-1.125	-.636	-.816	.726	.612	-1.122	-1.335
19	-1.079	-.925	-1.063	.672	-1.282	-1.160	-1.358
20	-.745	-1.208	-1.219	-1.276	-1.223	-1.172	-.436
21	.666	-1.143	-1.081	-1.239	-1.175	-1.182	-.436
22	.925	-.947	-1.000	-1.175	-1.163	-1.188	-.438
23	.711	.313	-.411	-1.149	.763	-1.252	-.438
24	-1.283	-.358	-.411	-1.129	-1.278	-1.402	-.438
25	-1.275	-1.139	-.413	.565	.344	-1.102	-.438
26	-1.213	-1.123	-.409	-1.256	-1.120	-.410	-.438
				$\delta_r = 40°$			
1	.278	.664	.757	.688	.572	.574	.604
2	.040	.628	.821	.702	.656	.407	.772
3	-.052	.585	.843	.688	.637	.711	.804
4	-.101	.551	.821	.648	.509	.697	.820
5	-.036	.455	.608	.573	.322	.690	.824
6	-.032	.162	.215	.433	-.261	.662	.784
7	-.371	-.700	-.988	-.308	-.758	.595	.614
8	-.730	-.939	-1.157	-.899	-.955	.411	-1.121
9	-.861	-1.004	-1.082	-1.179	-1.090	-.521	-1.149
10	-.917	-1.028	-1.046	-1.131	-1.126	-1.020	-1.145
11	-.806	-.957	-.958	-1.087	-1.079	-1.071	-1.101
12	-.657	-.901	-.899	-1.072	-1.071	-1.110	-1.073
13	.312	.474	.537	-1.062	-1.065	-1.110	-1.059
14	.817	.883	.419	-1.068	-1.065	-1.075	-1.063
15	.786	.822	.616	.738	.861	-1.041	-.440
16	.224	.721	.509	.744	.888	-1.029	.661
17	-.563	.115	.358	.740	.861	-1.022	.281
18	-.958	-.810	-1.187	.724	.631	-1.020	-1.164
19	-.897	-.911	-1.107	.670	-1.139	-1.035	-1.172
20	-.679	-1.036	-1.062	-1.111	-1.102	-1.051	-.442
21	.665	-.962	-.986	-1.085	-1.077	-1.051	-.440
22	.933	-.883	-.940	-1.046	-1.069	-1.055	-.440
23	.714	.352	-.437	-1.028	.754	-1.088	-.444
24	-1.151	-.332	-.435	-1.028	-1.138	-1.136	-.442
25	-1.159	-1.045	-.435	.567	.348	-.998	-.440
26	-1.081	-1.043	-.435	-1.107	-1.051	-.422	-.440

TABLE 44

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	.125	-.105	-.639	-.048	.067	.245	.401
2	-.028	-.340	-1.065	-.325	.176	.231	.659
3	-.206	-.422	-1.135	-.414	.102	.447	.683
4	-.374	-.480	-1.214	-.460	.086	.431	.716
5	-.519	-.605	-1.185	-.436	.051	.431	.754
6	-.687	-.662	-1.071	-.297	-.094	.431	.760
7	.424	.430	.188	-.217	-.216	.413	.643
8	.093	.002	-.300	.066	.045	.326	-.331
9	-.214	-.322	-.431	-.466	-.567	-.190	-1.093
10	-.410	-.486	-.514	-.618	-.800	-.121	-1.476
11	-.527	-.564	-.454	-.659	-.675	-.589	-1.282
12	-.604	-.625	-.347	-.624	-.522	-.990	-1.381
13	-.149	-.367	-.589	-.566	-.327	-1.075	-1.034
14	-.360	-.590	-1.236	-.351	-.302	-.953	-.770
15	-.451	-.766	-1.510	.544	.773	-.883	-.367
16	-.657	-.982	-1.581	.560	.820	-.733	.605
17	.370	-.693	-1.444	.580	.820	-.524	.192
18	-.228	.170	.161	.600	.633	-.395	-1.242
19	-.515	.240	.004	.584	-1.388	-1.010	-1.387
20	-.642	-.412	-.397	-1.237	-1.567	-1.209	-.375
21	.564	-.557	-.478	-1.195	-1.498	-1.830	-.377
22	.911	-.516	-.373	-1.118	-1.588	-3.202	-.379
23	.669	.174	-.367	-1.038	.725	-3.028	-.379
24	-.707	-.113	-.365	-.765	-2.353	-1.326	-.375
25	-1.594	-.500	-.365	.504	.427	-.409	-.375
26	-1.632	-.367	-.367	-2.141	-.594	-.342	-.373
				$\delta_r = -30°$			
1	.230	-.044	-.173	.008	.106	.268	.416
2	.041	-.274	-.558	-.238	.234	.252	.664
3	-.126	-.415	-.681	-.317	.165	.474	.695
4	-.360	-.540	-.748	-.352	.132	.453	.723
5	-.541	-.579	-.829	-.333	.073	.455	.752
6	-.628	-.524	-.806	-.234	-.134	.453	.762
7	.386	.345	.200	-.120	-.308	.425	.641
8	.083	-.131	-.470	-.004	.010	.311	-.408
9	-.203	-.399	-.560	-.567	-.662	-.287	-1.178
10	-.439	-.546	-.625	-.689	-.892	-.189	-1.531
11	-.567	-.589	-.524	-.719	-.764	-.693	-1.316
12	-.583	-.544	-.351	-.673	-.609	-1.083	-1.404
13	-.085	-.187	-.466	-.594	-.442	-1.169	-1.096
14	-.128	-.435	-.625	-.374	-.415	-1.035	-.865
15	-.354	-.714	-.853	.575	.798	-.949	-.357
16	-.480	-.883	-.895	.587	.825	-.817	.602
17	.325	-.498	-.744	.598	.807		.170
18	-.260	.183	.169	.612	.595	-.520	-1.336
19	-.571	.135	.038	.593	-1.485	-1.035	-1.463
20	-.593	-.488	-.524	-1.313	-1.694	-1.291	-.355
21	.563	-.593	-.581	-1.280	-1.654	-1.898	-.359
22	.906	-.462	-.462	-1.163	-1.694	-3.274	-.365
23	.632	.175	-.355	-1.106	.711	-3.250	-.363
24	-.750	-.198	-.349	-.837	-2.485	-1.467	-.363
25	-1.689	-.637	-.349	.472	.389	-.533	-.363
26	-1.746	-.514	-.349	-2.242	-.705	-.341	-.363
				$\delta_r = -20°$			
1	.253	.044	.390	.150	.155	.303	.442
2	.095	-.172	.198	-.032	.323	.289	.710
3	-.097	-.301	.093	-.103	.241	.530	.727
4	-.325	-.419	.091	-.150	.187	.503	.747
5	-.480	-.457	-.091	-.160	.086	.497	.768
6	-.385	-.367	-.465	-.121	-.201	.487	.756
7	.325	.236	.192	-.174	-.438	.448	.612
8	.112	-.168	-.586	-.083	-.074	.310	-.507
9	-.168	-.449	-.683	-.671	-.823	-.375	-1.349
10	-.439	-.641	-.750	-.832	-1.070	-.240	-1.766
11	-.567	-.633	-.606	-.871	-.910	-.802	-1.552
12	-.404	-.437	-.451	-.792	-.755	-1.230	-1.632
13	.017	-.084	-.135	-.669	-.594	-1.336	-1.306
14	.197	-.174	-.275	-.442	-.556	-1.210	-1.037
15	.066	-.411	-.432	.626	.831	-1.116	-.333
16	-.159	-.559	-.552	.636	.855	-.990	.583
17	.277	-.403	-.513	.642	.817	-.770	.105
18	-.319	.098	.065	.642	.552	-.654	-1.489
19	-.636	.064	-.036	.602	-1.713	-1.151	-1.680
20	-.439	-.595	-.642	-1.525	-1.924	-1.407	-.335
21	.555	-.681	-.671	-1.509	-1.938	-2.039	-.331
22	.909	-.417	-.549	-1.398	-1.898	-3.466	-.339
23	.580	.202	-.341	-1.331	.687	-3.601	-.337
24	-.774	-.253	-.339	-1.018	-2.799	-1.729	-.333
25	-1.868	-.778	-.337	.404	.351	-.666	-.331
26	-1.919	-.655	-.337	-2.483	-.863	-.318	-.331

TABLE 44 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.248	.124	.690	.242	.217	.337	.438
2	.083	-.046	.673	.100	.377	.325	.740
3	-.109	-.163	.631	.052	.316	.567	.764
4	-.325	-.257	.531	.006	.239	.555	.772
5	-.464	-.313	.380	-.012	.121	.545	.786
6	-.433	-.279	-.094	-.004	-.227	.528	.754
7	.268	.112	.202	-.110	-.514	.474	.576
8	.060	-.219	-.706	-.156	-.121	.323	-.596
9	-.230	-.514	-.898	-.792	-.935	-.453	-1.532
10	-.524	-.717	-.963	-.982	-1.184	-.266	-1.978
11	-.637	-.669	-.714	-1.010	-1.042	-.886	-1.782
12	-.456	-.460	-.516	-.922	-.868	-1.396	-1.838
13	.113	-.022	-.006	-.776	-.706	-1.524	-1.492
14	.724	.060	-.225	-.540	-.656	-1.402	-1.194
15	.732	-.149	-.331	.662	.844	-1.311	-.344
16	-.121	-.289	-.451	.670	.854	-1.179	.524
17	.135	-.303	-.439	.678	.802	-.907	.050
18	-.450	.026	-.063	.676	.502	-.768	-1.682
19	-.778	-.052	-.212	.630	-1.866	-1.352	-1.894
20	-.486	-.705	-.851	-1.720	-2.099	-1.644	-.342
21	.530	-.823	-.847	-1.700	-2.125	-2.354	-.346
22	.927	-.490	-.657	-1.586	-2.067	-3.976	-.356
23	.524	.221	-.347	-1.566	.636	-4.053	-.354
24	-.948	-.293	-.341	-1.192	-2.974	-1.986	-.348
25	-2.147	-.886	-.343	.354	.314	-.793	-.350
26	-2.268	-.745	-.343	-2.708	-.994	-.335	-.350
				$\delta_r = 0°$			
1	.258	.229	.827	.325	.281	.357	.463
2	.109	.096	.892	.239	.483	.351	.784
3	-.072	.004	.805	.189	.413	.612	.810
4	-.272	-.082	.746	.147	.313	.592	.810
5	-.406	-.153	.571	.108	.174	.575	.800
6	-.386	-.179	.091	.066	-.261	.555	.756
7	.177	.038	.035	-.175	-.589	.484	.547
8	.002	-.297	-.898	-.243	-.136	.310	-.629
9	-.270	-.584	-1.057	-.914	-1.026	-.582	-1.675
10	-.555	-.779	-1.152	-1.100	-1.379	-.378	-2.184
11	-.718	-.751	-.819	-1.129	-1.216	-1.049	-1.996
12	-.553	-.627	-.764	-1.050	-.992	-1.565	-2.086
13	.278	.054	.035	-.934	-.800	-1.696	-1.719
14	.722	.301	-.250	-.757	-.754	-1.576	-1.365
15	.716	.127	-.303	.701	.884	-1.469	-.353
16	-.109	.000	-.344	.707	.880	-1.347	.491
17	.040	-.197	-.368	.703	.780	-1.071	.006
18	-.624	-.034	-.333	.687	.407	-.933	-1.804
19	-.907	-.221	-.514	.631	-2.060	-1.443	-2.074
20	-.586	-.821	-1.136	-1.876	-2.369	-1.776	-.355
21	.555	-.904	-.976	-1.857	-2.451	-2.484	-.359
22	.946	-.715	-.817	-1.739	-2.441	-4.116	-.359
23	.469	.225	-.339	-1.713	.581	-4.533	-.361
24	-1.163	-.371	-.337	-1.347	-3.216	-2.371	-.361
25	-2.358	-1.030	-.337	.293	.269	-.945	-.361
26	-2.551	-.880	-.337	-2.898	-1.156	-.337	-.361
				$\delta_r = 10°$			
1	.292	.372	.905	.458	.325	.400	.454
2	.163	.278	1.002	.444	.557	.400	.798
3	.014	.197	.950	.389	.479	.689	.826
4	-.182	.102	.891	.336	.351	.661	.818
5	-.347	.010	.693	.273	.170	.641	.798
6	-.312	-.100	.238	.191	-.377	.610	.728
7	.122	-.030	-.048	-.167	-.806	.534	.466
8	-.010	-.370	-1.101	-.352	-.295	.321	-.708
9	-.292	-.667	-1.216	-1.067	-1.255	-.675	-1.850
10	-.569	-.896	-1.388	-1.253	-1.557	-.426	-2.442
11	-.835	-.915	-1.050	-1.303	-1.393	-1.171	-2.236
12	-.647	-.744	-.960	-1.228	-1.192	-1.763	-2.370
13	.237	.114	.319	-1.098	-1.042	-1.930	-1.980
14	.725	.533	.127	-.868	-1.014	-1.815	-1.586
15	.680	.374	.162	.750	.896	-1.723	-.366
16	-.049	.230	.032	.735	.882	-1.602	.408
17	-.041	-.106	-.067	.725	.760	-1.277	-.050
18	-.688	-.138	-.568	.701	.347	-1.092	-1.910
19	-.994	-.398	-.824	.631	-2.305	-1.665	-2.290
20	-.637	-.970	-1.366	-2.088	-2.585	-2.084	-.378
21	.457	-1.039	-1.236	-2.077	-2.745	-2.855	-.384
22	.931	-.856	-1.036	-1.986	-2.423	-4.731	-.396
23	.376	.240	-.386	-1.963	.519	-5.127	-.390
24	-1.069	-.492	-.388	-1.568	-3.549	-2.827	-.382
25	-2.514	-1.246	-.388	.206	.186	-1.116	-.384
26	-2.825	-1.087	-.384	-3.110	-1.325	-.375	-.378

TABLE 44 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	.321	.497	.845	.568	.397	.425	.442
2	.188	.457	.984	.587	.648	.431	.829
3	.059	.364	.924	.536	.583	.742	.859
4	-.123	.282	.888	.476	.425	.713	.843
5	-.297	.153	.659	.393	.231	.681	.798
6	-.275	-.024	.129	.274	-.370	.638	.700
7	.030	-.103	-.233	-.205	-.814	.549	.411
8	-.113	-.423	-1.365	-.528	-.283	.307	-.792
9	-.374	-.740	-1.309	-1.264	-1.310	-.795	-2.030
10	-.681	-1.012	-1.504	-1.423	-1.775	-.486	-2.647
11	-1.008	-1.080	-1.275	-1.472	-1.628	-1.297	-2.488
12	-.810	-.857	-1.082	-1.393	-1.344	-1.963	-2.615
13	.156	.161	.524	-1.241	-1.079	-2.142	-2.234
14	.768	.708	.408	-1.016	-1.038	-2.033	-1.792
15	.693	.577	.480	.795	.907	-1.941	-.397
16	.010	.421	.303	.775	.897	-1.823	.315
17	-.121	-.060	.169	.748	.723	-1.445	-.105
18	-.762	-.219	-.793	.716	.209	-1.242	-2.060
19	-1.081	-.549	-1.118	.626	-2.458	-1.829	-2.492
20	-.705	-1.131	-1.711	-2.258	-2.874	-2.256	-.399
21	.412	-1.260	-1.506	-2.243	-3.130	-3.061	-.397
22	.941	-.998	-1.255	-2.160	-3.065	-5.045	-.409
23	.295	.247	-.408	-2.117	.336	-5.703	-.407
24	-1.255	-.543	-.408	-1.714	-3.650	-3.313	-.407
25	-2.794	-1.437	-.408	.106	.136	-1.270	-.401
26	-3.224	-1.205	-.408	-3.356	-1.536	-.407	-.399
				$\delta_r = 30°$			
1	.339	.583	.756	.645	.449	.452	.460
2	.224	.620	.913	.697	.701	.454	.857
3	.100	.533	.862	.657	.633	.784	.901
4	-.060	.439	.815	.580	.463	.745	.873
5	-.194	.286	.541	.470	.222	.709	.821
6	-.184	.020	.035	.323	-.459	.666	.714
7	-.114	-.199	-.575	-.291	-.962	.566	.387
8	-.287	-.549	-1.555	-.667	-.399	.308	-.917
9	-.551	-.847	-1.299	-1.402	-1.445	-.843	-2.143
10	-.830	-1.097	-1.476	-1.522	-1.800	-.550	-2.690
11	-1.070	-1.123	-1.346	-1.566	-1.633	-1.365	-2.550
12	-.850	-.889	-1.112	-1.502	-1.417	-1.990	-2.585
13	.054	.221	.587	-1.378	-1.214	-2.167	-2.204
14	.798	.845	.476	-1.151	-1.182	-2.071	-1.808
15	.697	.722	.593	.827	.922	-1.978	-.429
16	.058	.565	.423	.801	.916	-1.841	.268
17	-.204	-.040	.254	.775	.729	-1.507	-.149
18	-.778	-.262	-.949	.725	.214	-1.308	-2.212
19	-1.044	-.672	-1.370	.624	-2.577	-1.849	-2.611
20	-.721	-1.203	-2.187	-2.341	-2.888	-2.218	-.427
21	.367	-1.256	-1.661	-2.335	-3.188	-2.953	-.427
22	.882	-.998	-1.358	-2.241	-2.772	-4.833	-.427
23	.250	.247	-.423	-2.187	.315	-5.943	-.427
24	-1.331	-.584	-.423	-1.805	-3.828	-3.695	-.427
25	-2.788	-1.473	-.423	.062	.092	-1.299	-.427
26	-3.337	-1.276	-.423	-3.494	-1.551	-.409	-.427
				$\delta_r = 40°$			
1	.352	.620	.698	.681	.484	.460	.454
2	.250	.739	.798	.751	.736	.438	.831
3	.115	.647	.820	.711	.673	.787	.888
4	.004	.564	.770	.645	.480	.755	.851
5	-.076	.371	.482	.532	.236	.717	.797
6	-.093	.018	.046	.353	-.484	.665	.695
7	-.211	-.432	-.904	-.428	-.992	.558	.392
8	-.421	-.765	-1.590	-.715	-.476	.297	-.922
9	-.674	-.982	-1.398	-1.165	-1.351	-.855	-1.930
10	-.841	-1.151	-1.506	-1.285	-1.587	-.645	-2.353
11	-.936	-1.153	-1.278	-1.343	-1.435	-1.363	-2.203
12	-.777	-.984	-1.068	-1.315	-1.300	-1.741	-2.106
13	-.030	.295	.512	-1.235	-1.196	-1.863	-1.727
14	.841	.926	.374	-1.135	-1.169	-1.745	-1.528
15	.716	.833	.566	.841	.915	-1.635	-.436
16	.107	.649	.432	.813	.921	-1.516	.243
17	-.260	-.068	.240	.775	.758	-1.339	-.030
18	-.775	-.422	-.910	.725	.296	-1.243	-2.050
19	-.962	-.709	-1.982	.612	-2.294	-1.508	-2.384
20	-.718	-1.159	-1.830	-1.996	-2.518	-1.737	-.444
21	.370	-1.203	-1.432	-1.966	-2.698	-2.199	-.446
22	.930	-.994	-1.182	-1.831	-2.175	-3.542	-.446
23	.332	.221	-.452	-1.701	.296	-5.008	-.446
24	-1.278	-.637	-.452	-1.480	-3.462	-3.295	-.446
25	-2.531	-1.335	-.450	.106	.093	-1.233	-.444
26	-3.018	-1.231	-.450	-3.187	-1.371	-.434	-.446

TABLE 45

Pressure coefficients on the vertical fin, High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	.073	-.106	-.424	.093	.066	.231	.407
2	.015	-.331	-.581	-.070	.332	.371	.691
3	-.052	-.283	-.746	-.190	.195	.516	.691
4	-.103	-.260	-.851	-.261	.111	.476	.674
5	-.280	-.331	-.901	-.290	.023	.444	.670
6	-.347	-.373	-.952	-.228	-.205	.426	.637
7	.402	.406	.226	-.259	-.299	.359	.450
8	.272	.369	.214	.114	.027	.216	-.145
9	.180	.283	.111	.085	.016	-.421	-.392
10	.107	.085	-.136	-.116	-.627	-.031	-.913
11	-.228	-.494	-.465	-.395	-1.086	-.073	-1.355
12	-.464	-.733	-.377	-.658	-.980	-.329	-1.471
13	-.174	-.348	-.526	-.810	-.432	-.941	-2.012
14	-.165	-.419	-.740	-.613	-.383	-1.273	-1.388
15	-.264	-.421	-1.252	.596	.811	-1.323	-.384
16	-.330	-.538	-1.247	.576	.797	-1.409	.417
17	.439	-.469	-1.107	.559	.713	-.866	.251
18	.454	.156	.180	.549	.365	-.608	-.336
19	.105	.385	.218	.478	-.492	-1.728	-1.458
20	-.559	.263	.105	-.617	-1.623	-2.191	-.386
21	.504	-.296	-.294	-1.300	-1.262	-3.644	-.386
22	.893	-.638	-.325	-1.315	-3.184	-4.482	-.386
23	.577	.110	-.392	-1.712	.311	-3.178	-.386
24	-.224	-.302	-.390	-1.360	-.486	-1.159	-.386
25	-.659	-.919	-.386	-.046	.180	-.623	-.386
26	-1.573	-.550	-.386	-.574	-1.023	-.390	-.384
				$\delta_r = -30°$			
1	.161	-.041	-.067	.119	.070	.242	.389
2	.186	-.047	-.417	-.053	.366	.299	.713
3	.118	-.063	-.458	-.155	.233	.545	.723
4	.079	-.132	-.538	-.209	.155	.498	.699
5	-.116	-.297	-.676	-.225	.043	.469	.684
6	-.344	-.356	-.792	-.184	-.236	.441	.633
7	.358	.338	.161	-.227	-.366	.392	.414
8	.284	.322	.194	.084	-.010	.211	-.225
9	.221	.248	.033	.029	-.060	-.502	-.412
10	.056	.100	-.255	-.178	-.828	-.085	-1.328
11	-.203	-.440	-.656	-.495	-1.287	-.140	-1.617
12	-.497	-.660	-.395	-.765	-1.103	-.417	-1.791
13	-.128	-.210	-.354	-.941	-.547	-1.045	-2.195
14	-.015	-.269	-.424	-.695	-.494	-1.374	-1.566
15	-.093	-.397	-.739	.636	.822	-1.421	-.387
16	-.267	-.552	-.703	.605	.810	-1.508	.496
17	.420	-.432	-.585	.591	.686	-.988	.162
18	.447	.167	.126	.571	.283	-.713	-.477
19	.081	.373	.177	.491	-.638	-1.850	-1.639
20	-.619	.283	.000	-.753	-1.930	-2.368	-.385
21	.524	-.271	-.448	-1.587	-1.463	-3.803	-.387
22	.905	-.597	-.481	-1.517	-3.488	-4.713	-.391
23	.538	.118	-.375	-1.978	.374	-3.421	-.387
24	-.286	-.346	-.377	-1.583	-.609	-1.362	-.383
25	-.826	-1.104	-.377	-.047	.141	-.719	-.383
26	-1.826	-.670	-.377	-.757	-1.172	-.370	-.385
				$\delta_r = -20°$			
1	.159	.035	.402	.209	.113	.258	.387
2	.200	.012	.265	.115	.442	.342	.737
3	.139	-.054	.018	.037	.315	.604	.751
4	.061	-.136	.037	-.027	.183	.545	.714
5	-.191	-.295	-.059	-.076	.063	.508	.681
6	-.369	-.295	-.408	-.090	-.294	.477	.607
7	.293	.236	.180	-.172	-.485	.400	.321
8	.250	.184	.198	.033	-.060	.191	-.294
9	.187	.093	-.012	-.047	-.169	-.633	-.451
10	.092	-.089	-.322	-.288	-.923	-.178	-1.385
11	-.297	-.640	-.720	-.622	-1.408	-.207	-1.798
12	-.501	-.638	-.506	-.916	-1.281	-.531	-1.938
13	-.057	-.118	-.098	-1.074	-.683	-1.279	-2.525
14	.051	-.031	-.137	-.802	-.598	-1.654	-1.809
15	-.018	-.205	-.220	.671	.838	-1.674	-.362
16	-.102	-.362	-.402	.640	.819	-1.785	.473
17	.350	-.353	-.469	.611	.683	-1.184	.146
18	.330	.122	.094	.589	.167	-.902	-.498
19	-.112	.240	.161	.495	-.706	-2.102	-1.815
20	-.580	.076	-.059	-.916	-2.113	-2.768	-.366
21	.458	-.494	-.533	-1.800	-1.648	-4.410	-.366
22	.919	-.589	-.622	-1.716	-3.908	-5.336	-.366
23	.440	.109	-.371	-2.207	.333	-3.904	-.366
24	-.411	-.421	-.371	-1.863	-.677	-1.578	-.366
25	-1.138	-1.209	-.371	-.016	.067	-.902	-.366
26	-2.248	-.810	-.371	-.996	-1.369	-.359	-.366

TABLE 45 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.176	.093	.618	.267	.115	.242	.355
2	.207	.115	.739	.231	.507	.351	.764
3	.145	.039	.616	.157	.383	.655	.781
4	.047	-.039	.552	.085	.241	.600	.734
5	-.170	-.173	.317	.029	.068	.552	.686
6	-.313	-.208	-.123	-.019	-.392	.515	.583
7	.242	.130	.113	-.190	-.643	.427	.267
8	.211	.101	.087	-.056	-.153	.195	-.360
9	.152	.025	-.089	-.159	-.264	-.741	-.607
10	.063	-.136	-.426	-.434	-1.256	-.234	-1.771
11	-.326	-.617	-.933	-.822	-1.722	-.296	-2.087
12	-.453	-.586	-.550	-1.136	-1.497	-.704	-2.337
13	.018	-.083	-.008	-1.281	-.849	-1.602	-2.919
14	.438	.188	-.131	-.948	-.788	-1.918	-2.099
15	.531	.014	-.101	.694	.854	-1.903	-.364
16	-.043	-.144	-.352	.655	.835	-2.018	.405
17	.211	-.256	-.380	.624	.647	-1.326	.087
18	.074	.043	.008	.593	.050	-1.019	-.628
19	-.279	.111	.057	.498	-.942	-2.302	-1.872
20	-.508	-.033	-.190	-1.140	-2.542	-3.094	-.366
21	.439	-.509	-.729	-2.141	-2.037	-4.928	-.366
22	.906	-.645	-.782	-1.913	-4.417	-5.955	-.366
23	.400	.115	-.366	-2.481	.326	-4.386	-.368
24	-.434	-.536	-.370	-2.109	-.885	-1.862	-.368
25	-1.174	-1.478	-.370	-.017	-.025	-1.031	-.368
26	-2.381	-.998	-.370	-1.298	-1.590	-.349	-.368
				$\delta_r = 0°$			
1	.180	.179	.712	.313	.152	.235	.301
2	.214	.247	.905	.352	.560	.368	.760
3	.153	.163	.790	.271	.442	.696	.795
4	.051	.048	.698	.208	.280	.642	.740
5	-.171	-.064	.444	.125	.078	.585	.683
6	-.278	-.143	-.026	.044	-.477	.540	.563
7	.169	.052	-.123	-.271	-.809	.411	.213
8	.131	.020	-.202	-.123	-.212	.162	-.443
9	.020	-.076	-.339	-.257	-.333	-.901	-.758
10	-.018	-.269	-.764	-.543	-1.379	-.324	-2.226
11	-.412	-.755	-1.331	-.964	-1.973	-.385	-2.333
12	-.510	-.685	-.815	-1.337	-1.732	-.794	-2.669
13	.067	-.044	.042	-1.511	-1.021	-1.822	-3.159
14	.749	.412	-.236	-1.119	-.990	-2.249	-2.285
15	.582	.245	-.171	.754	.856	-2.204	-.362
16	-.078	.080	-.290	.705	.835	-2.417	.299
17	.075	-.193	-.310	.651	.603	-1.571	.008
18	-.124	-.026	-.230	.606	-.066	-1.225	-.841
19	-.498	-.028	-.319	.493	-.967	-2.587	-2.030
20	-.561	-.241	-.649	-1.236	-2.751	-3.623	-.372
21	.367	-.713	-1.169	-2.360	-2.181	-5.875	-.376
22	.916	-.787	-1.119	-2.156	-5.049	-6.702	-.378
23	.347	.114	-.391	-2.802	.323	-4.874	-.376
24	-.508	-.629	-.387	-2.418	-.903	-2.136	-.376
25	-1.331	-1.705	-.389	-.020	-.111	-1.241	-.376
26	-2.663	-1.145	-.389	-1.509	-1.860	-.372	-.370
				$\delta_r = 10°$			
1	.173	.228	.742	.387	.165	.218	.255
2	.263	.419	.988	.512	.623	.360	.772
3	.187	.325	.900	.440	.512	.739	.848
4	.072	.230	.816	.361	.319	.673	.762
5	-.135	.052	.526	.256	.062	.614	.675
6	-.245	-.114	.010	.131	-.599	.550	.519
7	.100	-.018	-.205	-.308	-1.014	.424	.098
8	.056	-.066	-.421	-.262	-.327	.123	-.541
9	.008	-.180	-.523	-.442	-.504	-1.103	-.824
10	-.110	-.357	-.914	-.782	-1.649	-.412	-2.443
11	-.500	-.878	-1.542	-1.264	-2.169	-.436	-2.597
12	-.631	-.812	-1.043	-1.679	-1.948	-.885	-2.980
13	.050	-.002	.280	-1.841	-1.224	-1.970	-3.681
14	.771	.597	.145	-1.337	-1.181	-2.475	-2.651
15	.667	.459	.223	.802	.853	-2.436	-.393
16	-.060	.273	.010	.752	.855	-2.816	.176
17	-.012	-.156	-.100	.688	.573	-1.929	-.010
18	-.221	-.118	-.427	.627	-.185	-1.477	-.834
19	-.550	-.180	-.538	.435	-1.187	-3.002	-2.134
20	-.600	-.419	-.961	-1.542	-3.032	-4.289	-.403
21	.247	-.894	-1.546	-2.762	-2.595	-6.790	-.405
22	.894	-.960	-1.493	-2.482	-5.292	-7.331	-.405
23	.277	.104	-.391	-3.210	.226	-5.339	-.405
24	-.570	-.758	-.393	-2.768	-1.129	-2.519	-.403
25	-1.442	-1.988	-.393	-.012	-.200	-1.513	-.403
26	-2.900	-1.359	-.393	-2.028	-2.065	-.404	-.403

TABLE 45 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	.181	.287	.667	.432	.221	.204	.192
2	.303	.571	.957	.638	.687	.358	.756
3	.195	.468	.889	.568	.583	.768	.871
4	.079	.364	.784	.474	.360	.706	.780
5	-.144	.148	.456	.356	.084	.638	.665
6	-.242	-.099	-.039	.188	-.669	.560	.490
7	.028	-.059	-.300	-.339	-1.149	.416	.020
8	-.053	-.156	-.657	-.382	-.389	.090	-.635
9	-.173	-.296	-.542	-.591	-.513	-1.256	-1.042
10	-.303	-.443	-.947	-.883	-1.693	-.508	-2.645
11	-.732	-.917	-1.641	-1.327	-2.356	-.568	-2.837
12	-.795	-.897	-1.177	-1.781	-2.192	-1.088	-3.347
13	.010	.020	.435	-1.980	-1.397	-2.268	-4.012
14	.787	.721	.398	-1.483	-1.358	-2.690	-2.923
15	.661	.609	.497	.822	.851	-2.664	-.423
16	-.059	.401	.209	.759	.861	-3.022	.016
17	-.069	-.164	.012	.689	.568	-2.164	-.091
18	-.299	-.168	-.622	.607	-.274	-1.660	-.935
19	-.583	-.271	-.719	.458	-1.160	-3.188	-2.224
20	-.677	-.508	-1.285	-1.513	-3.094	-4.548	-.421
21	.136	-.921	-1.817	-2.828	-2.689	-7.096	-.419
22	.846	-1.057	-1.727	-2.622	-5.740	-7.980	-.423
23	.193	.081	-.411	-3.382	.164	-5.908	-.423
24	-.677	-.864	-.411	-3.102	-1.053	-3.134	-.421
25	-1.795	-2.235	-.411	-.035	-.284	-1.698	-.421
26	-3.256	-1.524	-.411	-1.992	-2.315	-.422	-.425
				$\delta_r = 30°$			
1	.192	.168	.592	.478	.190	.213	.218
2	.754	.344	.909	.719	.718	.368	.768
3	.873	.237	.859	.652	.622	.807	.881
4	.780	.093	.772	.557	.374	.746	.786
5	.669	-.107	.408	.421	.078	.673	.665
6	.492	-.192	-.127	.206	-.746	.589	.466
7	.014	-.065	-.457	-.413	-1.239	.443	-.028
8	-.607	-.164	-.893	-.427	-.450	.104	-.599
9	-.980	-.296	-.731	-.706	-.620	-1.248	-.877
10	-2.645	-.482	-1.048	-1.020	-1.826	-.520	-2.498
11	-2.839	-.753	-1.640	-1.470	-2.386	-.559	-2.823
12	-3.351	-.767	-1.204	-1.868	-2.245	-1.079	-3.254
13	-4.004	-.051	.499	-2.010	-1.464	-2.325	-4.159
14	-2.923	.812	.487	-1.543	-1.421	-2.738	-3.014
15	-.419	.642	.600	.848	.793	-2.709	-.433
16	.020	-.038	.333	.783	.861	-3.035	.054
17	-.077	-.105	.172	.702	.540	-2.126	-.060
18	-.931	-.403	-.725	.611	-.337	-1.663	-.865
19	-2.222	-.626	-.950	.453	-1.295	-3.033	-2.206
20	-.415	-.696	-1.697	-1.672	-3.264	-4.307	-.442
21	-.419	.069	-2.198	-2.978	-2.984	-6.892	-.444
22	-.419	.810	-1.800	-2.761	-5.624	-8.258	-.446
23	-.421	.186	-.424	-3.512	.004	-6.346	-.446
24	-.421	-.682	-.426	-3.051	-1.184	-3.512	-.446
25	-.421	-1.779	-.426	-.079	-.342	-1.675	-.446
26	-.421	-3.285	-.426	-2.215	-2.311	-.425	-.446
				$\delta_r = 40°$			
1	.159	.304	.540	.540	.211	.238	.191
2	.392	.835	.784	.769	.746	.369	.757
3	.241	.708	.800	.710	.671	.826	.904
4	.111	.596	.706	.589	.399	.766	.807
5	-.040	.316	.359	.452	.103	.695	.665
6	-.129	-.074	-.095	.225	-.709	.611	.470
7	-.219	-.304	-.595	-.440	-1.182	.455	-.010
8	-.270	-.535	-.968	-.378	-.448	.098	-.641
9	-.400	-.630	-.877	-.665	-.581	-1.244	-.978
10	-.547	-.654	-1.313	-.980	-1.702	-.525	-2.689
11	-.726	-.942	-1.671	-1.376	-2.219	-.551	-2.863
12	-.704	-.920	-1.329	-1.673	-2.095	-1.034	-3.466
13	-.137	.125	.421	-1.810	-1.360	-2.184	-3.538
14	.825	.891	.413	-1.470	-1.326	-2.645	-2.602
15	.656	.835	.554	.871	.760	-2.621	-.430
16	-.006	.594	.341	.804	.866	-2.874	-.179
17	-.169	-.193	.175	.718	.560	-2.118	-.145
18	-.501	-.278	-.940	.622	-.293	-1.621	-.932
19	-.660	-.425	-1.361	.458	-1.234	-2.912	-2.229
20	-.690	-.559	-2.181	-1.652	-3.174	-4.130	-.434
21	.036	-.950	-2.226	-2.918	-2.996	-6.429	-.436
22	.799	-1.107	-1.960	-2.720	-5.095	-8.060	-.448
23	.125	.082	-.446	-3.174	-.167	-6.345	-.444
24	-.724	-.891	-.446	-2.609	-1.138	-3.503	-.436
25	-2.038	-2.095	-.446	-.174	-.314	-1.625	-.436
26	-3.382	-1.473	-.446	-2.063	-2.114	-.439	-.436

TABLE 46

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.520	-.625	-.996	-.610	-.249	-.076	.108
2	-.468	-.739	-1.128	-.657	-.261	-.166	.196
3	-.485	-.637	-1.344	-.718	-.218	-.002	.296
4	-.400	-.568	-1.413	-.708	-.127	.051	.424
5	-.404	-.629	-1.296	-.649	-.057	.094	.564
6	-.507	-.654	-1.372	-.506	.010	.153	.724
7	-.524	-.684	-.773	-.373	-.090	.215	.890
8	-.517	-.654	-.709	-.733	-.741	.278	-.692
9	-.384	-.481	-.648	-.739	-.747	.205	-.676
10	-.300	-.393	-.597	-.675	-.778	-.722	-.686
11	-.442	-.619	-.688	-.622	-.847	-.718	-.956
12	-.538	-.678	-.765	-.700	-.818	-.712	-1.322
13	-.577	-.597	-.960	-.731	-.788	-.763	-1.192
14	-.575	-.857	-1.152	-.700	-.786	-.922	-1.044
15	-.485	-.878	-1.753	.120	.357	-1.037	-.372
16	-.528	-1.000	-1.866	.212	.539	-.996	.560
17	-.507	-.847	-1.808	.288	.749	-.912	.538
18	-.396	-.648	-.640	.371	.951	-.881	-.636
19	-.400	-.739	-.711	.469	-.653	-.795	-.636
20	-.556	-.548	-.670	-.684	-.702	-1.065	-.374
21	.407	-.611	-.668	-.818	-1.433	-1.280	-.374
22	.620	-.715	-.664	-1.133	-1.498	-1.656	-.376
23	.910	.096	-.368	-1.210	.637	-1.346	-.374
24	-.632	.104	-.370	-1.073	-.620	-1.041	-.370
25	-.632	-.878	-.374	.565	.735	-.961	-.374
26	-1.070	-.825	-.372	-.606	-.892	-.364	-.366
				$\delta_r = -30°$			
1	-.544	-.532	-.821	-.598	-.245	-.063	.109
2	-.489	-.634	-.994	-.665	-.253	-.151	.194
3	-.417	-.642	-.972	-.691	-.185	.016	.300
4	-.396	-.640	-.963	-.659	-.090	.071	.419
5	-.491	-.656	-.974	-.593	-.028	.117	.558
6	-.567	-.616	-1.071	-.455	.028	.177	.710
7	-.511	-.673	-.720	-.285	-.084	.242	.883
8	-.542	-.695	-.693	-.717	-.713	.302	-.663
9	-.427	-.593	-.598	-.738	-.711	.218	-.645
10	-.370	-.493	-.465	-.724	-.777	-.698	-.655
11	-.515	-.634	-.679	-.657	-.865	-.694	-.877
12	-.606	-.667	-.644	-.726	-.831	-.687	-1.308
13	-.558	-.566	-1.165	-.756	-.787	-.740	-1.258
14	-.468	-.879	-1.053	-.711	-.785	-.893	-1.103
15	-.487	-.967	-1.364	.132	.363	-1.036	-.373
16	-.466	-.992	-1.281	.222	.544	-.998	.546
17	-.524	-.722	-1.002	.301	.761	-.899	.530
18	-.476	-.646	-.630	.384	.956	-.857	-.613
19	-.487	-.748	-.671	.472	-.631	-.829	-.623
20	-.622	-.636	-.652	-.659	-.679	-1.081	-.369
21	.411	-.609	-.693	-.774	-1.406	-1.306	-.367
22	.622	-.665	-.683	-1.102	-1.540	-1.571	-.369
23	.910	.143	-.366	-1.209	.651	-1.262	-.367
24	-.628	.123	-.362	-1.069	-.596	-1.012	-.365
25	-.628	-.812	-.366	.583	.747	-.956	-.369
26	-1.053	-.755	-.360	-.579	-.930	-.361	-.367
				$\delta_r = -20°$			
1	-.477	-.575	-.559	-.460	-.195	-.039	.134
2	-.566	-.672	-.549	-.506	-.193	-.138	.212
3	-.550	-.686	-.551	-.514	-.127	.045	.310
4	-.538	-.686	-.511	-.482	-.046	.097	.432
5	-.560	-.670	-.280	-.434	.006	.150	.556
6	-.656	-.581	-.612	-.326	.036	.205	.707
7	-.530	-.717	-.658	-.238	-.092	.262	.878
8	-.644	-.773	-.755	-.672	-.677	.318	-.640
9	-.607	-.739	-.726	-.728	-.683	.227	-.625
10	-.568	-.702	-.700	-.734	-.727	-.665	-.621
11	-.633	-.688	-.666	-.700	-.771	-.665	-.725
12	-.652	-.658	-.614	-.734	-.749	-.659	-.841
13	-.413	-.567	-.757	-.746	-.707	-.682	-.813
14	-.218	-.761	-.742	-.694	-.703	-.753	-.766
15	-.187	-.824	-.807	.144	.373	-.809	-.375
16	-.350	-.834	-.789	.228	.542	-.773	.554
17	-.542	-.599	-.753	.308	.749	-.718	.552
18	-.646	-.670	-.549	.388	.940	-.694	-.601
19	-.609	-.761	-.600	.482	-.608	-.574	-.631
20	-.627	-.749	-.714	-.636	-.629	-.698	-.373
21	.426	-.674	-.694	-.710	-1.028	-.838	-.375
22	.627	-.652	-.678	-.900	-1.159	-1.008	-.375
23	.910	.140	-.378	-.962	.649	-.925	-.375
24	-.601	.125	-.376	-.916	-.574	-1.022	-.375
25	-.591	-.717	-.382	.580	.729	-.803	-.373
26	-.908	-.680	-.378	-.570	-.795	-.371	-.373

TABLE 46 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	-.497	-.496	-.156	-.312	-.140	.004	.167
2	-.626	-.562	.138	-.319	-.118	-.102	.244
3	-.640	-.569	.387	-.323	-.056	.083	.335
4	-.624	-.567	.453	-.304	.020	.136	.443
5	-.549	-.514	.443	-.264	.052	.181	.563
6	-.628	-.409	-.088	-.190	.076	.228	.701
7	-.553	-.643	-.609	-.312	-.040	.272	.854
8	-.720	-.722	-.651	-.611	-.633	.321	-.594
9	-.708	-.702	-.661	-.649	-.631	.224	-.579
10	-.684	-.681	-.643	-.649	-.621	-.616	-.569
11	-.636	-.621	-.647	-.637	-.607	-.602	-.581
12	-.622	-.603	-.589	-.623	-.597	-.589	-.577
13	-.300	-.476	-.471	-.613	-.579	-.593	-.571
14	.278	-.516	-.501	-.587	-.571	-.624	-.565
15	.431	-.544	-.561	.171	.381	-.632	-.388
16	-.280	-.532	-.575	.252	.547	-.630	.565
17	-.525	-.361	-.735	.313	.743	-.606	.567
18	-.720	-.617	-.585	.391	.934	-.591	-.585
19	-.706	-.685	-.613	.472	-.589	-.447	-.632
20	-.596	-.671	-.659	-.579	-.581	-.528	-.388
21	.437	-.605	-.657	-.603	-.605	-.610	-.386
22	.640	-.595	-.665	-.647	-.605	-.750	-.384
23	.926	.175	-.385	-.639	.621	-.770	-.390
24	-.608	.135	-.383	-.609	-.583	-1.016	-.388
25	-.604	-.587	-.383	.587	.727	-.709	-.388
26	-.648	-.571	-.383	-.542	-.565	-.376	-.382
				$\delta_r = 0°$			
1	-.413	-.347	.807	-.159	-.036	.074	.191
2	-.511	-.365	.870	-.145	-.004	-.052	.268
3	-.527	-.373	.813	-.155	.056	.158	.358
4	-.527	-.353	.809	-.139	.116	.206	.469
5	-.457	-.276	.728	-.104	.144	.246	.577
6	-.501	-.167	.383	-.040	.132	.289	.714
7	-.505	-.576	-.598	-.237	-.018	.325	.869
8	-.645	-.665	-.606	-.647	-.610	.361	-.584
9	-.663	-.649	-.631	-.667	-.612	.220	-.575
10	-.649	-.627	-.633	-.647	-.610	-.605	-.586
11	-.617	-.588	-.631	-.627	-.600	-.603	-.614
12	-.599	-.575	-.606	-.618	-.596	-.595	-.618
13	.285	-.257	-.276	-.608	-.596	-.589	-.610
14	.613	-.214	-.337	-.612	-.592	-.589	-.604
15	.685	-.214	-.542	.227	.432	-.565	-.396
16	-.106	-.192	-.606	.303	.596	-.549	.567
17	-.533	-.071	-.627	.369	.778	-.551	.571
18	-.681	-.580	-.637	.440	.956	-.559	-.590
19	-.693	-.616	-.602	.516	-.588	-.437	-.630
20	-.611	-.608	-.661	-.594	-.592	-.479	-.392
21	.469	-.537	-.651	-.596	-.582	-.527	-.392
22	.663	-.565	-.637	-.592	-.580	-.641	-.394
23	.922	.255	-.408	-.584	.646	-.695	-.396
24	-.585	.169	-.408	-.578	-.582	-1.012	-.392
25	-.591	-.575	-.414	.596	.752	-.701	-.398
26	-.721	-.565	-.406	-.576	-.574	-.401	-.392
				$\delta_r = 10°$			
1	-.365	-.190	.466	.082	.098	.176	.271
2	-.390	-.155	.864	.108	.130	.028	.339
3	-.402	-.139	.966	.106	.190	.253	.431
4	-.406	-.123	.994	.114	.230	.307	.537
5	-.343	-.038	.974	.135	.232	.341	.637
6	-.345	.036	.716	.169	.172	.383	.749
7	-.518	-.567	-.598	.010	-.012	.415	.876
8	-.562	-.631	-.588	-.655	-.621	.435	-.592
9	-.576	-.627	-.588	-.649	-.623	.253	-.571
10	-.598	-.621	-.592	-.643	-.621	-.605	-.606
11	-.584	-.585	-.582	-.639	-.603	-.603	-.596
12	-.558	-.560	-.570	-.643	-.603	-.593	-.594
13	.438	-.056	.108	-.649	-.607	-.589	-.588
14	.610	.071	.020	-.661	-.609	-.583	-.590
15	.703	.105	.028	.317	.493	-.577	-.410
16	.066	.137	-.056	.384	.641	-.573	.588
17	-.554	.173	-.130	.442	.812	-.575	.567
18	-.596	-.569	-.614	.502	.958	-.583	-.614
19	-.612	-.599	-.586	.570	-.621	-.499	-.643
20	-.562	-.591	-.594	-.604	-.613	-.537	-.406
21	.506	-.530	-.592	-.602	-.605	-.575	-.402
22	.691	-.542	-.586	-.596	-.599	-.659	-.406
23	.936	.323	-.410	-.590	.709	-.705	-.406
24	-.600	.192	-.408	-.588	-.613	-1.022	-.402
25	-.612	-.585	-.416	.604	.764	-.747	-.406
26	-.614	-.589	-.410	-.596	-.583	-.403	-.402

[redacted]

TABLE 46 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	-.318	-.024	.404	.293	.217	.261	.340
2	-.318	.036	.560	.343	.254	.088	.404
3	-.304	.063	.677	.355	.318	.345	.499
4	-.294	.089	.819	.359	.340	.388	.592
5	-.209	.175	.944	.371	.322	.416	.688
6	-.195	.210	.851	.384	.211	.448	.791
7	-.545	-.573	-.600	-.133	-.008	.468	.897
8	-.569	-.629	-.592	-.657	-.620	.480	-.602
9	-.563	-.611	-.582	-.651	-.622	.245	-.588
10	-.563	-.605	-.580	-.653	-.622	-.614	-.604
11	-.545	-.601	-.558	-.655	-.616	-.610	-.598
12	-.515	-.569	-.546	-.665	-.616	-.596	-.588
13	.404	.119	.335	-.667	-.624	-.594	-.590
14	.634	.302	.249	-.699	-.622	-.596	-.592
15	.736	.355	.378	.404	.531	-.586	-.419
16	.215	.393	.319	.472	.678	-.588	.632
17	-.594	.361	.249	.522	.835	-.588	.575
18	-.588	-.563	-.614	.564	.962	-.596	-.610
19	-.565	-.605	-.566	.610	-.610	-.574	-.636
20	-.523	-.593	-.572	-.614	-.614	-.602	-.416
21	.539	-.563	-.562	-.604	-.604	-.631	-.416
22	.714	-.544	-.552	-.600	-.604	-.719	-.419
23	.940	.369	-.426	-.594	.700	-.755	-.416
24	-.606	.222	-.418	-.590	-.608	-1.028	-.416
25	-.622	-.609	-.422	.612	.781	-.751	-.421
26	-.622	-.607	-.414	-.608	-.579	-.418	-.412
				$\delta_r = 30°$			
1	-.231	.171	.550	.462	.346	.354	.412
2	-.217	.256	.715	.505	.387	.154	.476
3	-.199	.282	.782	.517	.442	.423	.559
4	-.183	.316	.827	.525	.446	.465	.647
5	-.075	.384	.827	.523	.407	.496	.737
6	-.047	.356	.774	.517	.249	.522	.837
7	-.560	-.563	-.621	-.101	-.016	.530	.922
8	-.580	-.614	-.623	-.667	-.630	.520	-.624
9	-.580	-.604	-.601	-.639	-.640	.244	-.616
10	-.578	-.606	-.599	-.647	-.644	-.614	-.627
11	-.554	-.598	-.576	-.661	-.636	-.614	-.620
12	-.531	-.577	-.562	-.680	-.638	-.608	-.618
13	.418	.306	.517	-.669	-.648	-.604	-.614
14	.706	.545	.391	-.710	-.644	-.598	
15	.795	.600	.603	.475	.581	-.600	-.429
16	.373	.628	.542	.523	.722	-.596	.684
17	-.611	.471	.462	.572	.867	-.602	.584
18	-.598	-.551	-.644	.598	.967	-.606	-.624
19	-.578	-.596	-.589	.639	-.607	-.642	-.641
20	-.540	-.590	-.595	-.602	-.622	-.667	-.431
21	.592	-.513	-.582	-.606	-.620	-.685	-.429
22	.765	-.533	-.566	-.606	-.622	-.762	-.433
23	.953	.449	-.430	-.600	.699	-.772	-.433
24	-.617	.231	-.426	-.594	-.613	-.990	-.427
25	-.633	-.616	-.430	.604	.789	-.715	-.431
26	-.631	-.608	-.428	-.596	-.601	-.415	-.429
				$\delta_r = 40°$			
1	-.148	.354	.638	.582	.456	.429	.471
2	-.107	.453	.765	.627	.495	.216	.523
3	-.086	.486	.816	.648	.542	.498	.606
4	-.064	.512	.840	.640	.534	.534	.687
5	.047	.563	.806	.627	.472	.556	.770
6	.082	.474	.677	.603	.276	.577	.855
7	-.565	-.589	-.597	.202	-.019	.579	.921
8	-.587	-.636	-.611	-.664	-.678	.563	-.614
9	-.585	-.622	-.589	-.664	-.676	.240	-.606
10	-.587	-.626	-.587	-.680	-.691	-.627	-.636
11	-.569	-.618	-.554	-.701	-.682	-.629	-.636
12	-.538	-.593	-.542	-.733	-.676	-.621	-.628
13	.439	.459	.544	-.758	-.680	-.623	-.626
14	.764	.713	.423	-.827	-.680	-.623	-.620
15	.838	.770	.634	.530	.631	-.621	-.444
16	.470	.797	.609	.585	.759	-.619	.681
17	-.637	.557	.524	.631	.893	-.623	.578
18	-.598	-.573	-.634	.664	.967	-.623	-.630
19	-.591	-.616	-.589	.705	-.619	-.694	-.642
20	-.563	-.618	-.589	-.617	-.635	-.722	-.442
21	.612	-.600	-.566	-.619	-.635	-.730	-.444
22	.772	-.569	-.552	-.621	-.633	-.806	-.446
23	.949	.492	-.436	-.619	.707	-.810	-.446
24	-.620	.252	-.438	-.615	-.623	-1.008	-.444
25	-.630	-.659	-.440	.635	.794	-.704	-.451
26	-.634	-.654	-.440	-.607	-.614	-.425	-.440

TABLE 47

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.404	-.578	-.877	-.527	-.173	-.012	.147
2	-.434	-.722	-.975	-.620	-.224	-.107	.215
3	-.454	-.680	-1.228	-.690	-.206	.037	.294
4	-.468	-.623	-1.343	-.694	-.148	.066	.405
5	-.406	-.637	-1.304	-.633	-.109	.100	.528
6	-.480	-.682	-1.271	-.510	-.088	.148	.658
7	-.418	-.542	-.478	-.406	-.206	.186	.804
8	-.458	-.574	-.583	-.531	-.531	.221	-.538
9	-.460	-.588	-.575	-.602	-.572	.045	-.536
10	-.384	-.527	-.540	-.616	-.623	-.531	-.526
11	-.378	-.531	-.532	-.592	-.671	-.533	-.648
12	-.424	-.533	-.528	-.551	-.679	-.523	-1.055
13	-.438	-.566	-.793	-.629	-.619	-.541	-1.092
14	-.514	-.840	-1.107	-.594	-.605	-.635	-.935
15	-.496	-.828	-1.795	.078	.377	-.824	-.309
16	-.568	-.984	-2.125	.155	.516	-.857	.540
17	-.355	-.822	-1.934	.218	.714	-.770	.495
18	-.502	-.507	-.411	.331	.901	-.703	-.507
19	-.275	-.580	-.466	.408	-.500	-.770	-.515
20	-.456	-.625	-.561	-.518	-.533	-.980	-.309
21	.428	-.481	-.548	-.580	-1.068	-1.215	-.307
22	.620	-.552	-.532	-.796	-1.212	-1.332	-.317
23	.869	.043	-.298	-1.006	.595	-1.020	-.315
24	-.480	-.014	-.298	-.931	-.481	-.826	-.307
25	-.474	-.688	-.304	.567	.628	-.857	-.311
26	-.751	-.619	-.294	-.453	-.712	-.301	-.305
				$\delta_r = -30°$			
1	-.420	-.451	-.704	-.533	-.191	-.018	.142
2	-.446	-.592	-.951	-.663	-.236	-.105	.213
3	-.422	-.600	-.992	-.698	-.204	.032	.291
4	-.386	-.598	-1.012	-.682	-.128	.077	.397
5	-.426	-.598	-1.010	-.617	-.086	.111	.518
6	-.517	-.592	-1.059	-.493	-.073	.158	.650
7	-.400	-.483	-.470	-.379	-.191	.192	.800
8	-.471	-.559	-.583	-.527	-.523	.218	-.512
9	-.455	-.563	-.553	-.590	-.552	.038	-.500
10	-.390	-.505	-.506	-.606	-.591	-.517	-.506
11	-.422	-.503	-.512	-.604	-.664	-.519	-.615
12	-.475	-.505	-.498	-.570	-.692	-.507	-.877
13	-.444	-.507	-1.132	-.639	-.611	-.525	-.943
14	-.428	-.839	-.978	-.588	-.595	-.598	-.822
15	-.457	-.954	-1.326	.097	.369	-.689	-.310
16	-.505	-.974	-1.324	.172	.517	-.677	.534
17	-.372	-.692	-1.016	.247	.713	-.614	.510
18	-.519	-.469	-.374	.333	.906	-.560	-.482
19	-.240	-.559	-.443	.400	-.485	-.610	-.500
20	-.481	-.581	-.540	-.513	-.517	-.786	-.304
21	.422	-.382	-.559	-.572	-1.069	-.978	-.306
22	.620	-.507	-.561	-.761	-1.267	-1.077	-.310
23	.873	.082	-.291	-.970	.566	-.838	-.306
24	-.485	-.008	-.287	-.884	-.470	-.794	-.304
25	-.477	-.684	-.294	.576	.633	-.705	-.308
26	-.752	-.600	-.287	-.448	-.735	-.275	-.306
				$\delta_r = -20°$			
1	-.383	-.475	-.520	-.405	-.151	.020	.161
2	-.512	-.592	-.489	-.487	-.181	-.088	.228
3	-.556	-.632	-.637	-.497	-.145	.072	.310
4	-.579	-.646	-.608	-.481	-.089	.106	.413
5	-.565	-.612	-.478	-.431	-.052	.140	.520
6	-.617	-.549	-.641	-.335	-.052	.184	.639
7	-.409	-.493	-.491	-.323	-.161	.226	.790
8	-.512	-.557	-.550	-.493	-.510	.255	-.516
9	-.552	-.569	-.548	-.532	-.512	.110	-.504
10	-.565	-.577	-.554	-.534	-.508	-.491	-.502
11	-.552	-.533	-.520	-.530	-.488	-.489	-.512
12	-.538	-.503	-.489	-.511	-.490	-.473	-.560
13	-.304	-.451	-.719	-.501	-.472	-.471	-.565
14	-.448	-.700	-.682	-.479	-.468	-.471	-.536
15	-.512	-.801	-.830	.151	.373	-.481	-.317
16	-.367	-.817	-.823	.219	.512	-.495	.556
17	-.379	-.594	-.778	.280	.696	-.477	.520
18	-.577	-.487	-.425	.346	.883	-.457	-.506
19	-.556	-.545	-.454	.419	-.468	-.343	-.538
20	-.508	-.561	-.524	-.487	-.498	-.409	-.315
21	.435	-.437	-.528	-.487	-.544	-.489	-.315
22	.629	-.465	-.520	-.495	-.528	-.615	-.319
23	.881	.125	-.324	-.491	.569	-.635	-.319
24	-.498	-.014	-.320	-.474	-.478	-.852	-.313
25	-.498	-.479	-.326	.589	.627	-.591	-.319
26	-.609	-.463	-.322	-.474	-.474	-.297	-.310

TABLE 47 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	-.355	-.386	-.117	-.258	-.087	.069	.205
2	-.469	-.469	-.089	-.298	-.095	-.053	.271
3	-.509	-.493	-.018	-.308	-.049	.119	.344
4	-.545	-.503	.038	-.296	-.006	.156	.441
5	-.501	-.477	.327	-.272	.006	.180	.549
6	-.577	-.404	-.083	-.198	-.020	.222	.679
7	-.407	-.497	-.501	-.254	-.156	.244	.816
8	-.499	-.541	-.509	-.510	-.504	.269	-.516
9	-.529	-.551	-.509	-.526	-.506	.093	-.507
10	-.561	-.551	-.509	-.524	-.494	-.511	-.507
11	-.525	-.509	-.487	-.514	-.484	-.509	-.503
12	-.493	-.483	-.467	-.500	-.474	-.497	-.493
13	-.092	-.364	-.410	-.490	-.472	-.485	-.484
14	-.120	-.435	-.422	-.474	-.476	-.483	-.480
15	-.166	-.497	-.459	.198	.399	-.463	-.302
16	-.216	-.515	-.453	.258	.540	-.446	.565
17	-.409	-.380	-.485	.313	.713	-.448	.530
18	-.545	-.485	-.495	.371	.889	-.451	-.511
19	-.533	-.525	-.491	.438	-.488	-.329	-.534
20	-.485	-.525	-.501	-.502	-.504	-.366	-.302
21	.443	-.429	-.489	-.494	-.504	-.426	-.302
22	.633	-.453	-.485	-.488	-.498	-.549	-.306
23	.886	.153	-.327	-.474	.591	-.612	-.304
24	-.511	.012	-.321	-.464	-.502	-.893	-.304
25	-.515	-.469	-.325	.597	.630	-.554	-.302
26	-.549	-.461	-.319	-.498	-.464	-.319	-.298
				$\delta_r = 0°$			
1	-.311	-.263	.861	-.091	.018	.146	.251
2	-.405	-.292	.889	-.097	.029	.021	.315
3	-.419	-.310	.877	-.114	.067	.204	.391
4	-.429	-.312	.857	-.110	.094	.233	.483
5	-.396	-.263	.748	-.091	.090	.262	.579
6	-.446	-.188	.339	-.041	.014	.294	.699
7	-.427	-.500	-.538	-.163	-.155	.312	.824
8	-.506	-.536	-.528	-.533	-.525	.317	-.543
9	-.504	-.522	-.530	-.548	-.536	.092	-.547
10	-.508	-.530	-.522	-.545	-.532	-.513	-.545
11	-.502	-.508	-.502	-.543	-.528	-.519	-.553
12	-.477	-.482	-.508	-.541	-.530	-.506	-.543
13	.496	-.166	-.216	-.554	-.538	-.508	-.537
14	.730	-.152	-.365	-.541	-.540	-.504	-.527
15	.824	-.186	-.413	.269	.448	-.496	-.307
16	-.114	-.192	-.486	.328	.578	-.481	.587
17	-.452	-.117	-.520	.380	.749	-.487	.531
18	-.519	-.492	-.579	.430	.898	-.492	-.543
19	-.512	-.524	-.546	.486	-.525	-.415	-.551
20	-.485	-.514	-.558	-.516	-.530	-.454	-.313
21	.486	-.470	-.530	-.510	-.534	-.488	-.309
22	.670	-.478	-.516	-.512	-.528	-.606	-.313
23	.894	.192	-.315	-.508	.652	-.644	-.315
24	-.531	.049	-.310	-.500	-.521	-.900	-.307
25	-.539	-.520	-.313	.605	.646	-.562	-.315
26	-.575	-.518	-.308	-.494	-.507	-.288	-.307
				$\delta_r = 10°$			
1	-.275	-.100	.542	.150	.147	.225	.317
2	-.363	-.116	.852	.178	.164	.078	.378
3	-.369	-.116	.951	.170	.208	.286	.454
4	-.367	-.100	.984	.168	.218	.320	.546
5	-.301	-.043	.957	.178	.178	.344	.645
6	-.320	-.008	.655	.200	.048	.368	.733
7	-.453	-.535	-.520	-.230	-.166	.382	.833
8	-.547	-.602	-.526	-.592	-.566	.372	-.590
9	-.543	-.583	-.528	-.586	-.574	.085	-.580
10	-.539	-.589	-.519	-.594	-.578	-.579	-.588
11	-.496	-.571	-.493	-.604	-.572	-.577	-.588
12	-.465	-.537	-.480	-.610	-.574	-.565	-.586
13	.453	.026	.142	-.610	-.586	-.565	-.580
14	.656	.130	.076	-.648	-.586	-.563	-.572
15	.760	.132	.068	.343	.503	-.551	-.319
16	.037	.128	-.018	.392	.634	-.543	.616
17	-.520	.089	-.078	.436	.792	-.547	.520
18	-.564	-.531	-.507	.471	.923	-.551	-.596
19	-.523	-.577	-.522	.511	-.562	-.533	-.606
20	-.465	-.565	-.534	-.568	-.562	-.573	-.319
21	.535	-.474	-.517	-.564	-.564	-.594	-.321
22	.713	-.488	-.497	-.558	-.566	-.702	-.325
23	.912	.274	-.312	-.549	.681	-.718	-.325
24	-.580	.041	-.310	-.541	-.558	-1.000	-.317
25	-.586	-.583	-.310	.592	.667	-.588	-.323
26	-.590	-.575	-.306	-.550	-.543	-.312	-.317

TABLE 47 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	-.229	.073	.493	.331	.271	.321	.376
2	-.304	.079	.633	.363	.297	.149	.434
3	-.304	.087	.679	.365	.337	.380	.502
4	-.296	.100	.794	.361	.323	.407	.590
5	-.220	.156	.890	.349	.273	.429	.673
6	-.224	.148	.747	.339	.093	.446	.763
7	-.506	-.541	-.605	-.135	-.166	.444	.845
8	-.580	-.610	-.607	-.637	-.616	.421	-.614
9	-.580	-.594	-.587	-.633	-.614	.080	-.608
10	-.576	-.593	-.585	-.629	-.620	-.618	-.612
11	-.535	-.596	-.567	-.641	-.620	-.611	-.608
12	-.500	-.559	-.543	-.661	-.614	-.591	-.608
13	.441	.193	.383	-.694	-.626	-.591	-.604
14	.678	.358	.295	-.724	-.628	-.587	-.598
15	.771	.376	.413	.419	.568	-.577	-.323
16	.143	.382	.319	.470	.695	-.569	.635
17	-.576	.250	.242	.514	.834	-.564	.524
18	-.602	-.543	-.599	.544	.925	-.569	-.622
19	-.561	-.583	-.579	.579	-.608	-.626	-.643
20	-.500	-.579	-.589	-.595	-.608	-.656	-.313
21	.576	-.514	-.569	-.593	-.600	-.671	-.317
22	.747	-.506	-.547	-.587	-.606	-.775	-.325
23	.908	.321	-.329	-.581	.719	-.785	-.319
24	-.633	.071	-.325	-.575	-.608	-1.057	-.321
25	-.643	-.591	-.331	.613	.673	-.581	-.325
26	-.643	-.587	-.325	-.595	-.570	-.317	-.315
				$\delta_r = 30°$			
1	-.154	.264	.592	.492	.387	.402	.433
2	-.199	.292	.751	.524	.415	.213	.489
3	-.193	.300	.773	.524	.445	.455	.559
4	-.181	.318	.809	.514	.421	.477	.638
5	-.102	.348	.753	.496	.352	.498	.718
6	-.093	.272	.467	.457	.125	.518	.795
7	-.520	-.566	-.618	-.097	-.174	.508	.859
8	-.577	-.654	-.636	-.676	-.636	.459	-.652
9	-.585	-.636	-.602	-.656	-.646	.072	-.640
10	-.575	-.622	-.600	-.662	-.650	-.629	-.642
11	-.543	-.630	-.577	-.680	-.654	-.629	-.644
12	-.514	-.608	-.559	-.696	-.654	-.615	-.646
13	.461	.356	.541	-.727	-.666	-.615	-.636
14	.734	.586	.433	-.753	-.664	-.615	-.628
15	.801	.602	.602	.484	.603	-.604	-.334
16	.285	.604	.529	.532	.719	-.596	.662
17	-.596	.356	.433	.569	.850	-.600	.517
18	-.600	-.578	-.628	.591	.925	-.600	-.656
19	-.565	-.616	-.592	.613	-.617	-.705	-.672
20	-.518	-.610	-.594	-.626	-.628	-.732	-.330
21	.614	-.550	-.581	-.619	-.626	-.730	-.328
22	.780	-.546	-.567	-.621	-.632	-.826	-.336
23	.935	.378	-.328	-.613	.688	-.818	-.334
24	-.642	.078	-.326	-.605	-.628	-1.070	-.334
25	-.646	-.642	-.326	.601	.688	-.604	-.336
26	-.657	-.636	-.326	-.626	-.607	-.314	-.330
				$\delta_r = 40°$			
1	-.056	.433	.671	.617	.483	.477	.501
2	-.083	.479	.789	.649	.517	.274	.553
3	-.073	.489	.821	.665	.537	.535	.615
4	-.063	.499	.841	.651	.491	.557	.693
5	.020	.509	.739	.617	.401	.565	.758
6	.030	.365	.500	.569	.118	.573	.824
7	-.548	-.557	-.643	-.100	-.208	.561	.860
8	-.581	-.637	-.659	-.705	-.673	.499	-.651
9	-.583	-.631	-.627	-.705	-.679	.050	-.651
10	-.581	-.627	-.627	-.719	-.699	-.644	-.667
11	-.550	-.629	-.602	-.754	-.695	-.646	-.667
12	-.528	-.609	-.588	-.784	-.687	-.642	-.673
13	.488	.505	.558	-.790	-.691	-.646	-.665
14	.786	.752	.420	-.860	-.693	-.652	-.657
15	.829	.776	.641	.563	.649	-.642	-.347
16	.377	.758	.584	.599	.758	-.636	.679
17	-.629	.393	.474	.637	.874	-.640	.509
18	-.601	-.559	-.669	.649	.916	-.642	-.671
19	-.577	-.601	-.631	.663	-.641	-.777	-.675
20	-.536	-.607	-.624	-.677	-.647	-.795	-.347
21	.641	-.509	-.602	-.677	-.645	-.779	-.345
22	.802	-.541	-.586	-.681	-.655	-.861	-.351
23	.917	.431	-.345	-.677	.721	-.835	-.351
24	-.663	.066	-.345	-.669	-.645	-1.076	-.347
25	-.667	-.671	-.351	.613	.677	-.640	-.347
26	-.673	-.661	-.345	-.659	-.627	-.328	-.345

TABLE 48

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.147	-.403	-.863	-.441	-.092	.058	.222
2	-.397	-.699	-.950	-.578	-.149	-.041	.293
3	-.437	-.638	-1.177	-.653	-.172	.089	.344
4	-.468	-.563	-1.292	-.670	-.144	.104	.417
5	-.477	-.588	-1.298	-.620	-.128	.116	.514
6	-.521	-.659	-1.248	-.497	-.153	.141	.618
7	-.115	-.335	-.440	-.397	-.272	.158	.736
8	-.403	-.511	-.504	-.480	-.494	.154	-.506
9	-.384	-.491	-.477	-.511	-.508	-.069	-.502
10	-.420	-.514	-.481	-.512	-.508	-.500	-.500
11	-.513	-.578	-.492	-.509	-.487	-.514	-.486
12	-.515	-.572	-.475	-.511	-.464	-.504	-.473
13	-.187	-.408	-.729	-.524	-.450	-.492	-.459
14	-.519	-.807	-1.054	-.499	-.448	-.481	-.442
15	-.496	-.771	-1.792	.138	.454	-.444	-.259
16	-.559	-.863	-2.175	.184	.565	-.423	.569
17	.160	-.780	-2.100	.223	.716	-.411	.492
18	-.443	-.210	-.360	.311	.860	-.415	-.546
19	-.513	-.507	-.444	.361	-.521	-.351	-.589
20	-.544	-.522	-.473	-.514	-.508	-.398	-.263
21	.464	-.513	-.467	-.501	-.498	-.454	-.261
22	.660	-.557	-.460	-.491	-.481	-.579	-.266
23	.866	.015	-.256	-.466	.682	-.595	-.266
24	-.508	-.108	-.254	-.453	-.542	-.958	-.261
25	-.511	-.466	-.260	.587	.542	-.423	-.266
26	-.534	-.443	-.250	-.539	-.437	-.257	-.259
				$\delta_r = -30°$			
1	-.102	-.308	-.544	-.400	-.086	.071	.230
2	-.400	-.598	-.892	-.593	-.141	-.031	.301
3	-.432	-.644	-.963	-.651	-.157	.104	.359
4	-.448	-.667	-1.010	-.655	-.127	.109	.439
5	-.514	-.636	-1.029	-.604	-.115	.127	.531
6	-.585	-.642	-1.062	-.493	-.153	.154	.643
7	-.112	-.352	-.439	-.380	-.274	.175	.758
8	-.427	-.515	-.499	-.454	-.487	.173	-.523
9	-.434	-.515	-.484	-.501	-.507	-.058	-.521
10	-.429	-.516	-.493	-.509	-.513	-.484	-.512
11	-.504	-.534	-.478	-.495	-.489	-.497	-.500
12	-.542	-.534	-.455	-.481	-.474	-.493	-.484
13	-.087	-.331	-.892	-.489	-.468	-.489	-.488
14	-.454	-.791	-.870	-.464	-.468	-.488	-.480
15	-.521	-.983	-1.300	.158	.452	-.480	-.254
16	-.544	-1.021	-1.280	.216	.571	-.464	.584
17	.114	-.731	-.994	.257	.714	-.455	.500
18	-.477	-.300	-.375	.322	.853	-.459	-.539
19	-.494	-.493	-.439	.366	-.519	-.378	-.570
20	-.542	-.520	-.476	-.505	-.501	-.440	-.252
21	.459	-.474	-.476	-.487	-.501	-.499	-.250
22	.658	-.499	-.464	-.483	-.489	-.620	-.256
23	.859	.031	-.253	-.468	.677	-.641	-.256
24	-.485	-.099	-.250	-.458	-.530	-.919	-.256
25	-.490	-.460	-.255	.600	.526	-.457	-.256
26	-.515	-.453	-.251	-.526	-.450	-.246	-.254
				$\delta_r = -20°$			
1	-.098	-.270	-.170	-.261	-.041	.107	.247
2	-.426	-.497	-.365	-.391	-.071	-.002	.318
3	-.488	-.544	-.505	-.424	-.077	.148	.371
4	-.510	-.567	-.515	-.418	-.057	.160	.445
5	-.510	-.546	-.444	-.391	-.061	.177	.539
6	-.580	-.503	-.620	-.317	-.124	.199	.643
7	-.154	-.381	-.448	-.342	-.260	.214	.749
8	-.474	-.497	-.501	-.479	-.498	.205	-.508
9	-.510	-.517	-.497	-.521	-.514	-.049	-.510
10	-.496	-.517	-.499	-.525	-.504	-.517	-.500
11	-.488	-.515	-.476	-.516	-.480	-.515	-.484
12	-.510	-.518	-.450	-.504	-.469	-.505	-.467
13	-.002	-.268	-.491	-.492	-.467	-.495	-.465
14	-.346	-.551	-.536	-.479	-.467	-.480	-.459
15	-.478	-.707	-.704	.228	.461	-.464	-.265
16	-.398	-.759	-.715	.272	.573	-.456	.584
17	.014	-.544	-.700	.311	.720	-.452	.508
18	-.528	-.357	-.398	.358	.850	-.450	-.537
19	-.506	-.487	-.417	.399	-.512	-.380	-.592
20	-.498	-.518	-.474	-.516	-.504	-.431	-.261
21	.490	-.449	-.462	-.500	-.496	-.478	-.263
22	.694	-.497	-.452	-.486	-.484	-.596	-.263
23	.884	.070	-.251	-.473	.650	-.645	-.261
24	-.516	-.109	-.250	-.459	-.561	-.971	-.257
25	-.524	-.466	-.253	.611	.526	-.448	-.271
26	-.522	-.456	-.250	-.560	-.445	-.253	-.263

TABLE 48 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	-.060	-.196	.440	-.135	.028	.153	.294
2	-.364	-.374	.180	-.213	.012	.035	.361
3	-.433	-.416	.159	-.240	.008	.199	.422
4	-.465	-.444	.204	-.246	.018	.212	.496
5	-.455	-.426	.282	-.225	-.006	.224	.580
6	-.505	-.377	-.051	-.180	-.112	.241	.673
7	-.141	-.405	-.505	-.348	-.280	.249	.761
8	-.451	-.512	-.513	-.521	-.557	.224	-.567
9	-.497	-.529	-.513	-.553	-.567	-.071	-.561
10	-.509	-.539	-.511	-.557	-.549	-.550	-.567
11	-.493	-.510	-.487	-.541	-.522	-.546	-.545
12	-.471	-.506	-.466	-.527	-.516	-.535	-.529
13	.209	-.183	-.323	-.512	-.518	-.523	-.518
14	.121	-.305	-.374	-.504	-.520	-.510	-.510
15	-.107	-.416	-.413	.264	.496	-.494	-.276
16	-.183	-.467	-.421	.307	.610	-.481	.600
17	-.028	-.370	-.440	.350	.754	-.475	.484
18	-.523	-.375	-.503	.387	.870	-.485	-.604
19	-.513	-.514	-.489	.424	-.565	-.469	-.643
20	-.479	-.533	-.509	-.537	-.567	-.506	-.273
21	.497	-.484	-.489	-.518	-.557	-.544	-.273
22	.688	-.496	-.476	-.506	-.543	-.658	-.275
23	.875	.099	-.272	-.488	.661	-.687	-.280
24	-.571	-.088	-.272	-.484	-.612	-1.019	-.276
25	-.579	-.494	-.278	.602	.557	-.467	-.280
26	-.579	-.488	-.272	-.588	-.488	-.266	-.271
				$\delta_r = 0°$			
1	-.049	-.080	.908	-.006	.107	.227	.332
2	-.338	-.224	.914	-.031	.100	.096	.400
3	-.396	-.270	.904	-.069	.102	.280	.461
4	-.424	-.292	.858	-.081	.090	.292	.529
5	-.395	-.272	.745	-.073	.047	.306	.611
6	-.424	-.232	.279	-.048	-.113	.320	.701
7	-.203	-.465	-.573	-.288	-.332	.318	.781
8	-.496	-.574	-.534	-.596	-.627	.275	-.613
9	-.529	-.584	-.526	-.652	-.631	-.098	-.607
10	-.541	-.591	-.522	-.642	-.611	-.631	-.615
11	-.510	-.554	-.497	-.633	-.600	-.631	-.605
12	-.467	-.535	-.495	-.633	-.600	-.622	-.586
13	.486	-.025	-.207	-.644	-.619	-.612	-.570
14	.750	-.039	-.335	-.608	-.627	-.596	-.561
15	.852	-.125	-.390	.333	.529	-.582	-.271
16	-.119	-.179	-.444	.375	.641	-.573	.617
17	-.191	-.185	-.472	.406	.770	-.575	.480
18	-.563	-.461	-.663	.438	.867	-.576	-.658
19	-.541	-.576	-.565	.469	-.629	-.627	-.678
20	-.471	-.582	-.571	-.602	-.629	-.663	-.271
21	.543	-.477	-.522	-.590	-.619	-.702	-.268
22	.736	-.504	-.505	-.579	-.604	-.812	-.271
23	.887	.163	-.265	-.562	.703	-.835	-.271
24	-.623	-.125	-.259	-.552	-.684	-1.147	-.266
25	-.623	-.586	-.265	.612	.539	-.559	-.271
26	-.639	-.588	-.265	-.660	-.561	-.263	-.271
				$\delta_r = 10°$			
1	-.024	.083	.873	.236	.237	.304	.406
2	-.299	-.037	.842	.219	.253	.151	.479
3	-.347	-.068	.973	.203	.247	.363	.535
4	-.377	-.085	.998	.182	.208	.367	.600
5	-.339	-.064	.932	.172	.139	.375	.669
6	-.349	-.070	.630	.164	-.085	.378	.741
7	-.251	-.519	-.647	-.320	-.349	.357	.788
8	-.533	-.632	-.624	-.660	-.691	.294	-.709
9	-.569	-.657	-.614	-.725	-.703	-.147	-.707
10	-.591	-.669	-.600	-.717	-.685	-.724	-.729
11	-.555	-.609	-.571	-.715	-.641	-.725	-.715
12	-.501	-.591	-.556	-.713	-.645	-.712	-.693
13	.457	.128	.187	-.699	-.666	-.700	-.667
14	.687	.223	.078	-.719	-.676	-.676	-.650
15	.774	.163	.115	.404	.589	-.647	-.281
16	-.020	.124	-.008	.436	.701	-.629	.636
17	-.325	.006	-.068	.463	.811	-.631	.455
18	-.605	-.560	-.700	.480	.878	-.635	-.776
19	-.591	-.616	-.641	.492	-.691	-.757	-.786
20	-.507	-.645	-.614	-.678	-.703	-.792	-.285
21	.571	-.581	-.589	-.664	-.695	-.825	-.281
22	.760	-.562	-.573	-.652	-.676	-.935	-.287
23	.890	.203	-.273	-.627	.693	-.939	-.287
24	-.697	-.101	-.269	-.611	-.763	-1.275	-.283
25	-.705	-.655	-.273	.568	.560	-.625	-.283
26	-.721	-.655	-.271	-.764	-.606	-.269	-.281

TABLE 48 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	.050	.235	.635	.413	.337	.367	.463
2	-.244	.144	.731	.405	.359	.202	.533
3	-.298	.117	.729	.389	.355	.417	.588
4	-.341	.105	.800	.373	.298	.431	.648
5	-.286	.113	.784	.344	.201	.431	.710
6	-.278	.041	.326	.299	-.078	.429	.774
7	-.246	-.557	-.701	-.155	-.380	.410	.800
8	-.589	-.680	-.703	-.731	-.770	.326	-.778
9	-.659	-.730	-.694	-.825	-.786	-.150	-.776
10	-.704	-.740	-.680	-.807	-.758	-.750	-.778
11	-.643	-.676	-.642	-.800	-.723	-.753	-.761
12	-.573	-.654	-.623	-.800	-.719	-.740	-.745
13	.464	.258	.438	-.817	-.735	-.730	-.724
14	.708	.445	.350	-.829	-.735	-.705	-.698
15	.768	.402	.434	.495	.634	-.683	-.284
16	.062	.357	.308	.530	.727	-.668	.661
17	-.407	.120	.208	.554	.834	-.668	.453
18	-.730	-.610	-.758	.572	.869	-.664	-.837
19	-.698	-.645	-.660	.574	-.793	-.823	-.840
20	-.575	-.707	-.664	-.770	-.788	-.854	-.288
21	.623	-.598	-.640	-.750	-.772	-.880	-.286
22	.810	-.610	-.635	-.739	-.754	-.973	-.290
23	.893	.260	-.275	-.713	.717	-.994	-.288
24	-.875	-.118	-.277	-.697	-.877	-1.334	-.284
25	-.891	-.709	-.279	.605	.561	-.652	-.286
26	-.923	-.699	-.275	-.890	-.690	-.268	-.284
				$\delta_r = 30°$			
1	.067	.402	.674	.545	.438	.457	.506
2	-.139	.340	.815	.549	.463	.275	.575
3	-.192	.323	.791	.541	.461	.516	.621
4	-.220	.309	.813	.510	.391	.523	.680
5	-.157	.296	.694	.469	.270	.521	.727
6	-.149	.151	.314	.393	-.064	.520	.783
7	-.386	-.600	-.708	-.094	-.401	.477	.789
8	-.602	-.718	-.759	-.754	-.800	.377	-.828
9	-.661	-.760	-.738	-.854	-.813	-.186	-.832
10	-.694	-.754	-.718	-.824	-.800	-.824	-.836
11	-.637	-.702	-.668	-.830	-.761	-.830	-.826
12	-.573	-.692	-.652	-.846	-.761	-.814	-.806
13	.445	.393	.586	-.879	-.763	-.791	-.781
14	.741	.636	.483	-.881	-.757	-.783	-.759
15	.769	.611	.608	.539	.673	-.764	-.287
16	.173	.569	.499	.576	.765	-.750	.666
17	-.533	.207	.388	.590	.850	-.740	.437
18	-.712	-.648	-.791	.604	.852	-.744	-.905
19	-.688	-.656	-.696	.594	-.829	-.980	-.897
20	-.573	-.716	-.700	-.805	-.827	-1.006	-.289
21	.639	-.669	-.680	-.785	-.811	-.994	-.287
22	.822	-.658	-.664	-.766	-.788	-1.068	-.292
23	.876	.300	-.290	-.754	.716	-1.113	-.292
24	-.875	-.106	-.290	-.742	-.920	-1.354	-.292
25	-.882	-.762	-.292	.580	.562	-.719	-.292
26	-.912	-.747	-.290	-.967	-.728	-.277	-.289
				$\delta_r = 40°$			
1	.127	.558	.717	.641	.538	.508	.551
2	-.037	.532	.799	.653	.572	.316	.616
3	-.060	.520	.822	.651	.564	.561	.661
4	-.076	.502	.820	.622	.468	.564	.710
5	-.018	.460	.670	.571	.329	.563	.757
6	-.031	.243	.355	.483	-.072	.551	.798
7	-.489	-.643	-.695	-.207	-.454	.510	.790
8	-.593	-.737	-.738	-.782	-.831	.393	-.790
9	-.628	-.753	-.709	-.827	-.859	-.195	-.802
10	-.647	-.741	-.693	-.836	-.863	-.793	-.804
11	-.606	-.709	-.668	-.862	-.825	-.814	-.802
12	-.556	-.707	-.650	-.885	-.813	-.799	-.786
13	.462	.522	.561	-.891	-.829	-.789	-.765
14	.803	.807	.436	-.942	-.827	-.775	-.745
15	.811	.789	.629	.591	.731	-.773	-.298
16	.263	.731	.543	.616	.805	-.770	.684
17	-.643	.253	.414	.634	.884	-.766	.447
18	-.643	-.665	-.770	.628	.855	-.756	-.867
19	-.634	-.665	-.688	.612	-.869	-1.000	-.861
20	-.559	-.701	-.686	-.801	-.873	-1.016	-.292
21	.663	-.649	-.668	-.788	-.867	-1.000	-.294
22	.844	-.657	-.658	-.784	-.847	-1.072	-.294
23	.883	.345	-.299	-.774	.719	-1.105	-.290
24	-.846	-.108	-.297	-.762	-.944	-1.295	-.290
25	-.860	-.791	-.299	.567	.554	-.725	-.294
26	-.875	-.773	-.295	-.901	-.783	-.291	-.294

TABLE 49

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.038	-.222	-.657	-.204	.004	.184	.341
2	-.230	-.479	-.529	-.294	.016	.091	.441
3	-.256	-.455	-.752	-.393	-.030	.257	.481
4	-.347	-.485	-.893	-.437	-.020	.257	.543
5	-.395	-.440	-.875	-.405	-.022	.265	.613
6	-.385	-.408	-.818	-.252	-.054	.275	.697
7	.339	.394	.317	-.006	-.129	.279	.741
8	.107	.313	.006	.187	.115	.245	-.140
9	.020	.000	-.168	-.200	-.306	-.067	-.659
10	-.181	-.240	-.287	-.367	-.519	.020	-1.172
11	-.339	-.364	-.289	-.397	-.561	-.275	-.715
12	-.379	-.410	-.172	-.395	-.427	-.729	-1.305
13	-.208	-.459	-.626	-.401	-.229	-.753	-1.040
14	-.361	-.495	-.873	-.183	-.197	-.613	-.810
15	-.431	-.552	-1.216	.327	.569	-.779	-.263
16	-.383	-.545	-1.374	.367	.664	-.698	.599
17	.504	-.442	-1.238	.395	.779	-.472	.355
18	.349	.265	.224	.431	.817	-.358	-.527
19	-.200	.444	.212	.460	-1.036	-.998	-1.036
20	-.397	-.121	-.119	-1.018	-.909	-1.267	-.269
21	.544	-.317	-.279	-.633	-1.682	-1.650	-.265
22	.762	-.362	-.212	-.853	-1.439	-2.500	-.269
23	.825	.111	-.257	-1.002	.608	-2.478	-.269
24	-.308	-.048	-.253	-.728	-1.177	-1.190	-.265
25	-1.347	-.422	-.255	.435	.503	-.387	-.267
26	-1.040	-.275	-.253	-1.042	-.559	-.251	-.265
				$\delta_r = -30°$			
1	.211	-.069	-.327	-.159	.030	.180	.354
2	.020	-.145	-.660	-.349	.030	.090	.463
3	-.012	-.196	-.689	-.418	-.016	.253	.502
4	-.056	-.298	-.722	-.437	.000	.246	.563
5	-.291	-.427	-.788	-.402	-.010	.251	.632
6	-.440	-.435	-.714	-.269	-.074	.259	.699
7	.353	.335	.329	-.061	-.184	.255	.738
8	.173	.256	-.115	.163	.068	.224	-.191
9	.078	-.012	-.255	-.267	-.365	-.138	-.736
10	-.096	-.232	-.358	-.433	-.599	-.056	-1.293
11	-.303	-.367	-.331	-.451	-.587	-.373	-.787
12	-.382	-.395	-.193	-.431	-.487	-.830	-1.339
13	-.127	-.264	-.661	-.416	-.293	-.846	-1.077
14	-.116	-.435	-.737	-.192	-.263	-.695	-.856
15	-.165	-.583	-1.095	.363	.591	-.816	-.260
16	-.450	-.736	-1.037	.392	.685	-.750	.608
17	.440	-.431	-.745	.422	.796	-.551	.329
18	.311	.246	.243	.449	.822	-.451	-.589
19	-.257	.446	.185	.473	-1.126	-1.076	-1.130
20	-.410	-.095	-.220	-1.137	-1.034	-1.341	-.264
21	.556	-.327	-.339	-.735	-1.691	-1.798	-.262
22	.773	-.343	-.280	-.931	-1.491	-2.723	-.264
23	.829	.101	-.251	-1.061	.653	-2.575	-.266
24	-.331	-.085	-.253	-.792	-1.323	-1.327	-.256
25	-1.460	-.512	-.257	.437	.503	-.481	-.262
26	-1.110	-.351	-.251	-1.118	-.627	-.259	-.256
				$\delta_r = -20°$			
1	.250	.000	.085	-.008	.113	.252	.386
2	.137	-.136	-.050	-.164	.126	.151	.505
3	.058	-.222	-.275	-.216	.088	.337	.546
4	-.087	-.315	-.188	-.242	.066	.325	.593
5	-.324	-.370	-.265	-.228	.025	.329	.659
6	-.394	-.293	-.438	-.154	-.107	.339	.712
7	.312	.222	.352	-.068	-.267	.321	.722
8	.175	.049	-.190	.032	-.006	.260	-.288
9	.054	-.189	-.378	-.408	-.481	-.194	-.853
10	-.137	-.346	-.487	-.554	-.735	-.123	-1.528
11	-.372	-.421	-.428	-.560	-.689	-.472	-.959
12	-.360	-.331	-.246	-.524	-.611	-.966	-1.485
13	-.008	-.089	-.287	-.488	-.424	-1.067	-1.204
14	-.040	-.254	-.321	-.278	-.389	-.857	-.975
15	-.093	-.425	-.473	.416	.621	-.982	-.237
16	-.243	-.551	-.495	.440	.712	-.950	.611
17	.376	-.313	-.446	.470	.804	-.726	.280
18	.113	.183	.156	.492	.790	-.605	-.687
19	-.358	.262	.143	.504	-1.249	-1.290	-1.294
20	-.354	-.270	-.345	-1.306	-1.222	-1.575	-.231
21	.571	-.445	-.448	-.966	-1.745	-2.081	-.239
22	.793	-.295	-.378	-1.084	-1.677	-3.222	-.243
23	.807	.110	-.250	-1.182	.644	-3.093	-.241
24	-.427	-.144	-.246	-.938	-1.422	-1.448	-.235
25	-1.678	-.667	-.250	.434	.467	-.623	-.237
26	-1.318	-.506	-.248	-1.314	-.761	-.238	-.231

TABLE 49 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.255	.118	.191	.156	.188	.294	.433
2	.167	-.038	.364	.012	.216	.194	.553
3	.048	-.129	.411	-.040	.170	.379	.587
4	-.127	-.209	.598	-.082	.120	.375	.637
5	-.325	-.267	.370	-.088	.054	.373	.697
6	-.353	-.223	.037	-.062	-.146	.371	.745
7	.277	.145	.409	-.162	-.337	.355	.741
8	.179	-.016	-.268	-.042	-.088	.262	-.373
9	.022	-.221	-.522	-.448	-.589	-.266	-1.008
10	-.211	-.400	-.618	-.644	-.904	-.175	-1.709
11	-.418	-.470	-.484	-.674	-.824	-.514	-1.142
12	-.311	-.301	-.335	-.620	-.747	-1.077	-1.653
13	.088	.050	.014	-.566	-.539	-1.214	-1.349
14	.363	-.006	-.073	-.376	-.489	-.970	-1.110
15	.376	-.165	-.222	.468	.667	-1.095	-.232
16	-.052	-.283	-.315	.492	.739	-1.073	.643
17	.319	-.237	-.313	.514	.816	-.839	.257
18	-.187	.124	.030	.528	.758	-.714	-.776
19	-.470	.129	-.002	.522	-1.395	-1.488	-1.423
20	-.313	-.335	-.528	-1.478	-1.441	-1.772	-.232
21	.586	-.530	-.553	-1.096	-1.962	-2.300	-.236
22	.813	-.315	-.449	-1.198	-1.912	-3.530	-.236
23	.789	.149	-.228	-1.370	.645	-3.387	-.234
24	-.482	-.173	-.222	-1.084	-1.547	-1.609	-.230
25	-1.861	-.789	-.226	.406	.447	-.730	-.232
26	-1.464	-.608	-.220	-1.426	-.906	-.226	-.230
				$\delta_r = 0°$			
1	.256	.188	.876	.214	.250	.347	.447
2	.143	.052	.892	.127	.301	.239	.575
3	.026	-.030	.834	.077	.254	.446	.610
4	-.129	-.097	.774	.042	.191	.434	.660
5	-.296	-.161	.641	.030	.100	.432	.716
6	-.324	-.165	.188	.018	-.165	.428	.750
7	.203	.058	.068	-.103	-.406	.392	.712
8	.115	-.131	-.483	-.129	-.128	.281	-.423
9	-.054	-.327	-.633	-.567	-.677	-.341	-1.060
10	-.274	-.506	-.786	-.748	-.996	-.253	-1.950
11	-.473	-.522	-.603	-.758	-.900	-.663	-1.258
12	-.388	-.452	-.587	-.688	-.839	-1.249	-1.877
13	.427	.111	.024	-.661	-.626	-1.369	-1.586
14	.761	.200	-.174	-.550	-.579	-1.112	-1.312
15	.783	.062	-.301	.490	.699	-1.229	-.239
16	-.070	-.050	-.345	.514	.766	-1.221	.624
17	.113	-.161	-.381	.534	.827	-.988	.197
18	-.322	.020	-.220	.552	.734	-.849	-.839
19	-.610	-.093	-.321	.540	-1.510	-1.733	-1.586
20	-.439	-.512	-.794	-1.605	-1.593	-1.988	-.235
21	.608	-.609	-.705	-1.226	-2.128	-2.578	-.241
22	.839	-.508	-.609	-1.317	-2.030	-3.942	-.243
23	.761	.173	-.242	-1.446	.642	-3.795	-.243
24	-.531	-.212	-.238	-1.214	-1.732	-1.797	-.235
25	-2.002	-.925	-.238	.387	.443	-.857	-.237
26	-1.630	-.736	-.232	-1.554	-1.004	-.235	-.235
				$\delta_r = 10°$			
1	.267	.341	.928	.384	.338	.411	.494
2	.163	.212	.980	.335	.400	.295	.627
3	.038	.141	.954	.284	.362	.515	.665
4	-.120	.073	.926	.247	.270	.505	.708
5	-.289	-.014	.776	.208	.146	.499	.748
6	-.313	-.089	.429	.163	-.210	.487	.764
7	.114	.010	-.062	-.112	-.536	.439	.687
8	.060	-.224	-.741	-.249	-.226	.301	-.530
9	-.141	-.423	-.766	-.749	-.838	-.435	-1.266
10	-.359	-.641	-.970	-.927	-1.200	-.357	-2.204
11	-.625	-.696	-.820	-.925	-1.106	-.814	-1.468
12	-.532	-.613	-.792	-.841	-1.084	-1.431	-2.155
13	.371	.212	.305	-.847	-.836	-1.577	-1.885
14	.741	.438	.156	-.696	-.786	-1.289	-1.571
15	.735	.315	.158	.575	.744	-1.407	-.270
16	-.034	.198	.030	.592	.802	-1.411	.621
17	.014	-.056	-.066	.604	.834	-1.186	.137
18	-.512	-.077	-.477	.608	.692	-1.032	-.988
19	-.797	-.286	-.613	.584	-1.736	-2.032	-1.810
20	-.578	-.690	-.994	-1.837	-1.890	-2.253	-.272
21	.622	-.718	-.910	-1.439	-2.380	-2.938	-.276
22	.861	-.653	-.808	-1.512	-2.476	-4.423	-.282
23	.703	.212	-.253	-1.735	.626	-4.293	-.284
24	-.622	-.313	-.255	-1.469	-2.018	-2.114	-.272
25	-2.277	-1.228	-.261	.361	.418	-1.046	-.270
26	-1.904	-.990	-.257	-1.778	-1.288	-.244	-.270

TABLE 49 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	.292	.460	.835	.537	.417	.460	.000
2	.183	.367	.924	.511	.502	.331	.000
3	.060	.297	.878	.477	.453	.577	.000
4	-.109	.227	.898	.421	.344	.563	.000
5	-.270	.118	.717	.359	.185	.552	.000
6	-.286	-.022	.167	.265	-.258	.532	.000
7	.020	-.062	-.227	-.152	-.638	.472	.000
8	-.016	-.337	-.996	-.383	-.323	.308	.000
9	-.270	-.560	-.910	-.920	-.939	-.550	.000
10	-.481	-.785	-1.143	-1.168	-1.427	-.427	.000
11	-.775	-.837	-1.040	-1.200	-1.297	-.901	.000
12	-.674	-.727	-.946	-1.096	-1.291	-1.629	.000
13	.344	.287	.544	-1.070	-.976	-1.855	.000
14	.755	.618	.414	-.850	-.931	-1.492	.000
15	.722	.508	.454	.639	.776	-1.661	.000
16	.000	.388	.291	.651	.823	-1.706	.000
17	-.072	-.006	.169	.649	.835	-1.415	.000
18	-.680	-.183	-.725	.643	.614	-1.218	.000
19	-.913	-.488	-.884	.599	-1.900	-2.389	.000
20	-.668	-.871	-1.398	-2.144	-2.205	-2.615	.000
21	.624	-.978	-1.219	-1.701	-2.543	-3.500	.000
22	.877	-.801	-1.042	-1.703	-2.874	-5.190	.000
23	.666	.221	-.283	-2.088	.634	-4.802	.000
24	-.726	-.351	-.281	-1.733	-2.193	-2.401	.000
25	-2.529	-1.396	-.281	.323	.374	-1.260	.000
26	-2.147	-1.110	-.275	-1.994	-1.518	-.274	.000
				$\delta_r = 30°$			
1	.327	.568	.798	.624	.499	.509	.544
2	.195	.528	.900	.624	.590	.376	.714
3	.092	.458	.836	.595	.549	.638	.750
4	-.050	.388	.818	.538	.412	.622	.772
5	-.205	.260	.575	.454	.223	.606	.792
6	-.221	.040	.126	.329	-.284	.577	.774
7	-.080	-.154	-.605	-.260	-.710	.507	.626
8	-.225	-.504	-1.253	-.517	-.368	.328	-.698
9	-.508	-.746	-1.012	-1.010	-1.036	-.604	-1.566
10	-.741	-.862	-1.216	-1.202	-1.602	-.489	-2.550
11	-.930	-.902	-1.108	-1.241	-1.441	-.984	-1.858
12	-.765	-.796	-.966	-1.160	-1.425	-1.738	-2.504
13	.313	.384	.617	-1.115	-1.078	-1.936	-2.214
14	.801	.778	.471	-.906	-1.028	-1.581	-1.868
15	.739	.688	.609	.675	.823	-1.734	-.306
16	.076	.552	.431	.681	.857	-1.769	.586
17	-.155	.028	.285	.681	.833	-1.511	.064
18	-.733	-.290	-1.034	.654	.557	-1.300	-1.242
19	-.914	-.674	-1.182	.605	-1.998	-2.433	-2.124
20	-.699	-.948	-1.749	-2.184	-2.417	-2.746	-.298
21	.622	-.908	-1.377	-1.832	-2.759	-3.678	-.302
22	.910	-.854	-1.164	-1.843	-3.089	-5.423	-.308
23	.614	.260	-.291	-2.086	.535	-5.091	-.308
24	-.781	-.404	-.289	-1.777	-2.260	-2.656	-.300
25	-2.673	-1.508	-.289	.295	.342	-1.354	-.304
26	-2.390	-1.220	-.285	-2.114	-1.650	-.296	-.298
				$\delta_r = 40°$			
1	.365	.656	.770	.684	.550	.551	.564
2	.185	.652	.813	.692	.631	.412	.735
3	.077	.584	.821	.660	.590	.678	.775
4	-.018	.523	.792	.600	.444	.663	.791
5	-.077	.382	.565	.523	.255	.645	.803
6	-.117	.097	.188	.380	-.251	.610	.779
7	-.173	-.374	-.788	-.121	-.641	.541	.627
8	-.421	-.664	-1.254	-.495	-.371	.343	-.653
9	-.635	-.755	-1.115	-.881	-.978	-.539	-1.492
10	-.750	-.773	-1.183	-1.048	-1.341	-.480	-2.343
11	-.790	-.811	-.998	-1.074	-1.205	-.949	-1.799
12	-.704	-.775	-.881	-1.016	-1.157	-1.551	-2.249
13	.254	.469	.601	-1.002	-.926	-1.710	-1.976
14	.821	.877	.393	-.867	-.884	-1.441	-1.643
15	.760	.807	.571	.694	.811	-1.508	-.305
16	.139	.670	.472	.702	.845	-1.492	.552
17	-.300	.066	.327	.692	.831	-1.265	.108
18	-.722	-.404	-.986	.678	.582	-1.082	-1.171
19	-.784	-.658	-1.911	.612	-1.930	-2.002	-1.994
20	-.663	-.813	-1.752	-2.026	-2.229	-2.265	-.305
21	.609	-.891	-1.183	-1.746	-2.667	-3.012	-.307
22	.899	-.821	-1.020	-1.751	-2.618	-4.618	-.321
23	.635	.266	-.294	-1.885	.484	-4.835	-.313
24	-.813	-.350	-.290	-1.612	-2.187	-2.533	-.305
25	-2.462	-1.231	-.294	.286	.347	-1.114	-.311
26	-2.256	-1.012	-.288	-2.119	-1.398	-.278	-.299

TABLE 50

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1		-.179	-.558	-.100	-.370	-.289	-.189
2		-.442	-.442	-.148	.196	.008	.085
3		-.372	-.737	-.286	.048	.353	.486
4		-.353	-.844	-.340	-.008	.287	.502
5		-.311	-.792	-.296	-.060	.247	.515
6		-.325	-.671	-.167	-.223	.231	.548
7		.543	.367	.019	-.360	.208	.514
8		.402	.388	.248	.182	.091	-.017
9		.298	.315	.265	.155	-.599	-.052
10		.223	.223	.202	-.019	.069	-.181
11		.060	.098	.123	-.037	.056	-.388
12		-.104	-.048	.079	-.200	-.017	-.614
13		-.494	-.769	.017	-.843	-.148	-.990
14		-.479	-.646	-.163	-.502	-.235	-1.859
15		-.440	-1.231	.401	.136	-.310	-.301
16		-.415	-1.558	.378	.591	-.539	.012
17		-.360	-1.340	.349	.678	-.669	.143
18		.274	.263	.367	.626	-1.509	-.050
19		.536	.350	.359	-.089	-3.183	.010
20		.442	.302	-.088	-.291	-2.934	-.297
21		.208	.133	-.250	-.667	-2.382	-.295
22		-.177	.098	-.403	-1.574	-1.601	-.301
23		.034	-.308	-.622	.004	-.518	-.295
24		-.315	-.306	-.820	-.043	-.135	-.290
25		-.519	-.306	-.023	.186	-1.626	-.301
26		-.828	-.300	.040	-1.560	-.304	-.295
				$\delta_r = -30°$			
1	.206	-.091	-.158	-.023	-.304	-.249	-.162
2	.107	-.156	-.488	-.212	.223	.052	.149
3	.037	-.140	-.531	-.298	.087	.384	.515
4	.006	-.186	-.560	-.329	.025	.315	.527
5	-.078	-.239	-.622	-.314	-.045	.275	.542
6	-.124	-.227	-.624	-.242	-.262	.256	.566
7	.396	.395	.326	.008	-.446	.222	.508
8	.258	.255	.347	.177	.126	.092	-.091
9	.144	.176	.232	.160	.101	-.692	-.122
10	.078	.107	.141	.082	-.089	.006	-.272
11	-.023	-.036	.037	.010	-.130	-.013	-.496
12	-.105	-.182	-.106	-.019	-.314	-.098	-.749
13	-.167	-.387	-.550	-.121	-.907	-.247	-1.178
14	-.054	-.387	-.593	-.337	-.585	-.329	-2.039
15	-.111	-.496	-.965	.405	.169	-.426	-.286
16	-.155	-.561	-.923	.380	.589	-.662	.037
17	.417	-.362	-.602	.372	.674	-.786	.149
18	.544	.217	.257	.402	.607	-1.941	-.106
19	.330	.399	.311	.386	-.124	-3.440	-.068
20	.045	.294	.232	-.224	-.339	-3.298	-.288
21	-.006	.107	.060	-.404	-.738	-2.767	-.286
22	.163	-.273	.002	-.612	-1.678	-1.964	-.288
23	.664	.004	-.280	-.924	.004	-.765	-.282
24	-.105	-.417	-.274	-1.273	-.074	-.323	-.278
25	-.130	-.798	-.280	-.012	.147	-2.040	-.282
26	-.581	-1.004	-.278	-.027	-1.568	-.273	-.278
				$\delta_r = -20°$			
1	.236	.029	.395	.097	-.182	-.164	-.122
2	.193	-.035	.091	-.021	.296	.135	.265
3	.123	-.102	-.214	-.079	.157	.447	.599
4	.064	-.155	-.212	-.120	.075	.374	.576
5	-.037	-.204	-.293	-.126	-.036	.324	.576
6	-.094	-.164	-.395	-.091	-.350	.304	.585
7	.335	.272	.272	-.120	-.621	.250	.475
8	.242	.155	.258	.095	-.017	.087	-.224
9	.152	.065	.121	.056	-.094	-.834	-.257
10	.090	-.020	.010	-.027	-.312	-.133	-.444
11	-.039	-.131	-.110	-.078	-.337	-.152	-.699
12	-.127	-.198	-.252	-.083	-.587	-.258	-1.055
13	-.088	-.227	-.214	-.143	-1.174	-.426	-1.560
14	.016	-.114	-.197	-.388	-.786	-.511	-2.479
15	-.078	-.297	-.385	.508	.281	-.665	-.259
16	-.097	-.399	-.416	.465	.709	-.963	.084
17	.316	-.262	-.372	.436	.717	-1.096	.149
18	.329	.170	.150	.424	.564	-2.193	-.194
19	.010	.290	.206	.386	-.302	-3.827	-.196
20	-.152	.137	.064	-.308	-.589	-3.931	-.257
21	-.002	-.033	-.067	-.508	-1.120	-3.622	-.261
22	.292	-.268	-.131	-.698	-2.348	-2.867	-.263
23	.739	.004	-.256	-.998	-.004	-1.501	-.261
24	-.226	-.528	-.254	-1.269	-.187	-.915	-.257
25	-.308	-.933	-.262	-.002	.151	-2.249	-.265
26	-1.039	-1.370	-.254	-.033	-1.751	-.247	-.259

[redacted]

TABLE 50 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.239	.159	.681	.238	-.039	-.078	-.061
2	.198	.054	.525	.125	.355	.196	.349
3	.128	-.025	.290	.057	.227	.503	.630
4	.060	-.083	.309	.006	.115	.431	.610
5	-.082	-.153	.103	-.029	-.021	.382	.602
6	-.163	-.140	-.154	-.043	-.425	.348	.592
7	.276	.157	.160	-.148	-.775	.282	.446
8	.232	.060	.016	-.014	-.107	.084	-.323
9	.142	-.027	-.070	-.080	-.194	-.965	-.360
10	.074	-.101	-.181	-.180	-.441	-.215	-.584
11	-.093	-.196	-.241	-.217	-.509	-.245	-.891
12	-.138	-.217	-.372	-.219	-.817	-.362	-1.313
13	.025	-.130	-.035	-.311	-1.357	-.552	-1.893
14	.280	.130	-.070	-.604	-1.012	-.681	-2.529
15	.140	-.066	-.066	.564	.398	-.859	-.240
16	.025	-.186	-.175	.512	.742	-1.170	.113
17	.232	-.225	-.202	.479	.726	-1.329	.103
18	-.004	.087	.045	.463	.520	-2.391	-.281
19	-.142	.134	.056	.416	-.396	-4.190	-.333
20	-.173	-.019	-.105	-.439	-.761	-4.245	-.236
21	.043	-.184	-.214	-.660	-1.338	-4.088	-.234
22	.268	-.318	-.259	-.900	-2.695	-3.411	-.240
23	.673	-.002	-.232	-1.293	.041	-1.953	-.234
24	-.284	-.674	-.233	-1.668	-.235	-1.493	-.232
25	-.358	-1.050	-.233	.010	.107	-2.393	-.238
26	-1.130	-1.870	-.230	-.086	-1.963	-.231	-.232
				$\delta_r = 0°$			
1	.253	.295	.847	.316	.040	.016	-.026
2	.154	.149	.937	.219	.447	.284	.465
3	.068	.067	.812	.141	.304	.562	.690
4	.006	-.006	.742	.083	.160	.482	.638
5	-.136	-.091	.536	.036	-.018	.428	.620
6	-.216	-.137	.078	-.018	-.573	.391	.583
7	.179	.071	-.108	-.314	-1.047	.313	.382
8	.095	-.022	-.250	-.105	-.186	.082	-.416
9	.029	-.107	-.319	-.229	-.294	-1.095	-.461
10	-.053	-.204	-.519	-.328	-.549	-.302	-.724
11	-.222	-.297	-.673	-.378	-.577	-.340	-1.080
12	-.261	-.347	-.732	-.384	-.949	-.482	-1.531
13	.175	-.012	.029	-.513	-1.941	-.693	-2.276
14	.765	.350	-.182	-.909	-1.445	-.821	-3.235
15	.772	.145	-.192	.600	.397	-1.035	-.256
16	-.014	.004	-.286	.553	.792	-1.387	.129
17	.066	-.198	-.350	.513	.747	-1.683	.008
18	-.144	.006	-.247	.485	.458	-2.442	-.368
19	-.298	-.057	-.297	.417	-.464	-4.759	-.497
20	-.307	-.251	-.538	-.590	-.848	-5.105	-.260
21	.053	-.358	-.611	-.835	-1.486	-5.045	-.258
22	.321	-.523	-.656	-1.123	-3.018	-4.228	-.262
23	.726	.004	-.258	-1.539	.075	-2.626	-.258
24	-.362	-.788	-.250	-1.924	-.271	-2.111	-.252
25	-.479	-1.200	-.254	.004	-.002	-2.463	-.262
26	-1.403	-2.311	-.249	-.159	-2.433	-.233	-.260
				$\delta_r = 10°$			
1	.206	.390	.876	.447	.178	.180	.085
2	.163	.304	.967	.398	.520	.367	.542
3	.058	.206	.896	.325	.385	.622	.720
4	-.028	.129	.833	.252	.205	.541	.671
5	-.183	-.002	.600	.171	-.027	.484	.633
6	-.270	-.147	.081	.061	-.727	.431	.560
7	.062	-.022	-.226	-.370	-1.346	.329	.274
8	-.006	-.137	-.478	-.274	-.324	.047	-.514
9	-.105	-.225	-.602	-.449	-.459	-1.457	-.563
10	-.190	-.304	-.833	-.559	-.748	-.414	-.841
11	-.421	-.482	-.994	-.596	-.779	-.451	-1.240
12	-.478	-.588	-1.150	-.598	-1.203	-.606	-1.694
13	.161	.065	.301	-.752	-2.504	-.829	-2.431
14	.732	.559	.152	-1.313	-1.979	-.957	-3.641
15	.687	.363	.199	.650	.461	-1.194	-.280
16	-.081	.200	-.006	.591	.799	-1.580	.095
17	-.040	-.198	-.132	.535	.725	-1.806	-.065
18	-.313	-.131	-.506	.496	.342	-3.802	-.437
19	-.464	-.253	-.569	.409	-.596	-6.259	-.661
20	-.488	-.427	-.888	-.726	-1.031	-6.408	-.286
21	.044	-.535	-.980	-1.004	-1.723	-6.076	-.284
22	.423	-.816	-1.073	-1.313	-3.422	-5.027	-.292
23	.698	.002	-.272	-1.793	.029	-3.249	-.280
24	-.474	-.961	-.268	-2.183	-.355	-2.765	-.278
25	-.665	-1.461	-.270	-.022	-.123	-3.725	-.286
26	-1.746	-2.882	-.266	-.224	-2.869	-.267	-.278

TABLE 50 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 20°$			
1	.231	.432	.835	.549	.322	.324	.272
2	.204	.458	.941	.539	.588	.411	.724
3	.091	.354	.835	.473	.463	.656	.754
4	-.030	.260	.784	.387	.262	.582	.700
5	-.186	.082	.455	.287	.012	.523	.659
6	-.277	-.150	-.133	.122	-.746	.462	.575
7	-.006	-.110	-.369	-.445	-1.387	.346	.282
8	-.095	-.306	-.792	-.447	-.438	.033	-.663
9	-.304	-.422	-.667	-.695	-.605	-1.607	-.752
10	-.393	-.442	-1.071	-.806	-.949	-.517	-1.115
11	-.565	-.718	-1.351	-.832	-1.035	-.568	-1.643
12	-.648	-.850	-1.486	-.838	-1.455	-.733	-2.238
13	.103	.098	.498	-1.028	-2.488	-.965	-3.175
14	.741	.716	.433	-1.619	-1.945	-1.134	-3.544
15	.652	.534	.451	.691	.666	-1.389	-.292
16	-.093	.354	.212	.637	.832	-1.806	.016
17	-.079	-.206	.045	.585	.723	-2.100	-.091
18	-.439	-.226	-.751	.535	.275	-3.796	-.571
19	-.504	-.428	-.778	.431	-.701	-6.947	-1.077
20	-.628	-.552	-1.276	-.858	-1.281	-7.155	-.304
21	.069	-.744	-1.327	-1.202	-1.980	-6.843	-.306
22	.441	-1.106	-1.418	-1.593	-3.871	-5.686	-.310
23	.638	.006	-.292	-2.142	-.049	-3.747	-.304
24	-.518	-.990	-.288	-2.711	-.451	-3.507	-.296
25	-.709	-1.842	-.296	-.048	-.125	-3.904	-.298
26	-1.798	-2.566	-.290	-.307	-2.986	-.285	-.292
				$\delta_r = 30°$			
1	.188	.510	.760	.610	.400	.337	.330
2	.226	.615	.899	.636	.648	.412	.773
3	.097	.502	.825	.576	.531	.687	.781
4	-.032	.399	.752	.484	.307	.618	.716
5	-.186	.187	.421	.360	.028	.556	.664
6	-.275	-.135	-.123	.162	-.778	.482	.563
7	-.129	-.204	-.635	-.484	-1.402	.357	.231
8	-.283	-.524	-1.065	-.514	-.491	.024	-.662
9	-.505	-.560	-.919	-.804	-.681	-1.592	-.734
10	-.600	-.569	-1.224	-.950	-1.053	-.570	-1.030
11	-.743	-.895	-1.367	-.984	-1.152	-.616	-1.586
12	-.786	-1.002	-1.345	-.998	-1.630	-.789	-2.225
13	.028	.175	.567	-1.204	-2.307	-1.052	-3.324
14	.776	.851	.464	-1.624	-1.802	-1.263	-3.515
15	.653	.690	.563	.712	.822	-1.506	-.296
16	-.079	.478	.329	.660	.873	-1.946	.036
17	-.206	-.210	.155	.604	.729	-2.235	-.044
18	-.584	-.244	-.752	.546	.238	-3.406	-.541
19	-.632	-.554	-1.151	.424	-.764	-6.183	-.964
20	-.743	-.607	-1.675	-.926	-1.364	-6.616	-.294
21	.182	-.855	-1.587	-1.384	-2.154	-6.755	-.298
22	.756	-1.149	-1.623	-1.736	-4.226	-5.813	-.302
23	.636	.000	-.288	-2.334	.008	-3.807	-.294
24	-.628	-1.063	-.282	-2.678	-.438	-3.566	-.298
25	-.893	-1.865	-.282	-.054	-.123	-3.355	-.296
26	-2.424	-2.855	-.280	-.350	-2.855	-.289	-.294
				$\delta_r = 40°$			
1	.194	.548	.693	.666	.455	.437	.350
2	.249	.732	.791	.709	.678	.431	.795
3	.119	.625	.771	.662	.579	.718	.807
4	.032	.521	.705	.563	.354	.657	.744
5	-.061	.298	.371	.433	.079	.599	.686
6	-.154	-.077	-.074	.215	-.676	.528	.592
7	-.241	-.377	-.731	-.512	-1.239	.399	.305
8	-.389	-.653	-.966	-.383	-.458	.101	-.678
9	-.522	-.623	-.956	-.638	-.619	-1.185	-.768
10	-.542	-.584	-1.586	-.806	-1.014	-.573	-1.090
11	-.619	-.921	-1.454	-.862	-1.211	-.629	-1.674
12	-.686	-1.053	-1.313	-.895	-1.555	-.804	-2.369
13	-.042	.282	.506	-.994	-1.814	-1.129	-2.953
14	.796	.931	.454	-1.374	-1.563	-1.446	-2.619
15	.656	.805	.554	.729	.828	-1.716	-.303
16	-.014	.596	.373	.678	.866	-1.990	.008
17	-.247	-.170	.149	.613	.739	-2.071	-.043
18	-.540	-.351	-.988	.528	.314	-1.800	-.576
19	-.587	-.586	-1.520	.385	-.719	-3.383	-1.049
20	-.715	-.580	-1.924	-.891	-1.496	-3.974	-.311
21	.150	-1.051	-1.602	-1.316	-2.229	-5.077	-.311
22	.664	-1.254	-1.570	-1.682	-3.628	-5.635	-.328
23	.656	.055	-.299	-2.178	-.099	-4.177	-.316
24	-.583	-.897	-.291	-2.468	-.464	-4.298	-.309
25	-.822	-1.951	-.297	-.043	-.067	-1.831	-.307
26	-2.168	-1.854	-.293	-.322	-2.265	-.278	-.305

TABLE 51

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.196	-.321	-.730	-.564	-.355	-.284	-.191
2	-.299	-.535	-.809	-.551	-.385	-.240	-.131
3	-.273	-.461	-1.060	-.636	-.366	-.251	-.077
4	-.198	-.440	-1.180	-.596	-.314	-.229	.002
5	-.206	-.541	-1.193	-.521	-.253	-.209	.101
6	-.912	-.881	-1.436	-.441	-.121	-.171	.250
7	-.062	.076	.303	-.247	-.033	-.125	.503
8	-.015	.185	.298	.185	.024	-.042	-.441
9	.013	.205	.352	.264	.054	.200	-.576
10	.048	.233	.388	.275	.015	-.185	-.591
11	.064	.220	.556	.286	-.072	-.196	-.776
12	-.174	.246	.684	.282	-.177	-.211	-.905
13	-.165	-.470	-.732	.222	-.494	-.277	-1.215
14	-.450	-.616	-1.030	.004	-.664	-.341	-1.452
15	-.417	-.604	-1.830	-.206	-.028	-.389	-.207
16	-1.134	-.763	-2.425	-.161	.100	-.457	.226
17	.330	-.772	-2.135	-.120	.297	-.549	.529
18	.697	.125	.234	-.079	.608	-.833	-.589
19	.761	.431	.305	.017	-.935	.360	-1.379
20	.448	.524	.307	-.368	-.909	.191	-.204
21	.068	.535	.296	-.482	-1.253	.040	-.204
22	.242	.513	.163	-.579	-1.660	-.182	-.204
23	.629	-.162	-.225	-.652	.310	-.406	-.204
24	-.479	-.011	-.227	-.708	-.656	-1.253	-.204
25	-1.217	-.396	-.227	.381	.396	-.064	-.204
26	-1.886	-.694	-.228	-.708	-1.048	-.206	-.204
				$\delta_r = -30°$			
1	-.114	-.169	-.699	-.515	-.338	-.275	-.181
2	-.168	-.237	-.743	-.557	-.357	-.230	-.114
3	-.139	-.258	-.802	-.587	-.328	-.221	-.052
4	-.110	-.273	-.793	-.571	-.270	-.195	.031
5	-.106	-.383	-.812	-.539	-.210	-.176	.129
6	-.499	-.531	-.958	-.487	-.080	-.137	.280
7	-.048	.025	.213	-.218	-.006	-.091	.533
8	-.010	.087	.215	.072	-.082	-.010	-.527
9	.006	.092	.271	.172	-.056	.219	-.647
10	.019	.104	.313	.176	-.097	-.304	-.695
11	.017	.063	.559	.172	-.186	-.292	-.876
12	-.193	.048	.370	.148	-.291	-.337	-1.012
13	-.156	-.412	-1.036	.054	-.627	-.393	-1.317
14	-.225	-.438	-1.154	-.210	-.862	-.466	-1.589
15	-.241	-.537	-1.324	-.170	.006	-.516	-.214
16	-.482	-.629	-1.599	-.116	.146	-.574	.234
17	.277	-.581	-1.019	-.068	.351	-.667	.521
18	.653	.017	.209	-.016	.660	-1.006	-.645
19	.711	.292	.261	.082	-1.076	.199	-1.486
20	.304	.381	.261	-.497	-1.008	-.006	-.208
21	.085	.344	.202	-.615	-1.361	-.184	-.208
22	.279	.296	.015	-.727	-1.862	-.439	-.208
23	.690	-.125	-.219	-.804	.334	-.694	-.208
24	-.565	.010	-.215	-.868	-.736	-1.667	-.208
25	-1.443	-.496	-.215	.393	.443	-.199	-.208
26	-2.089	-.835	-.215	-.814	-1.181	-.211	-.208
				$\delta_r = -20°$			
1	.053	-.132	-.485	-.369	-.252	-.221	-.111
2	.006	-.141	-.485	-.386	-.256	-.203	-.045
3	-.006	-.172	-.569	-.384	-.209	-.163	.023
4	-.008	-.213	-.569	-.371	-.163	-.131	.104
5	-.045	-.263	-.191	-.337	-.112	-.111	.201
6	-.196	-.323	-.474	-.298	-.016	-.080	.357
7	.037	-.031	.080	-.153	.019	-.034	.607
8	.023	.000	.121	-.043	-.211	.040	-.627
9	.023	-.012	.179	.029	-.205	.237	-.715
10	.025	-.012	.224	.018	-.250	-.431	-.791
11	.012	-.066	.540	.006	-.335	-.410	-.992
12	-.176	-.168	-.327	-.039	-.434	-.469	-1.162
13	-.090	-.298	-.657	-.153	-.795	-.521	-1.398
14	-.092	-.368	-.581	-.445	-1.203	-.596	-1.781
15	-.104	-.422	-.733	-.116	.072	-.642	-.195
16	-.135	-.474	-.879	-.057	.229	-.700	.273
17	.231	-.369	-1.064	-.014	.432	-.799	.529
18	.288	-.072	.076	.035	.748	-1.187	-.746
19	.403	.103	.119	.127	-1.202	.000	-1.729
20	.072	.170	.111	-.594	-1.103	-.231	-.197
21	.125	.133	-.002	-.696	-1.492	-.425	-.197
22	.317	-.081	-.335	-.812	-2.141	-.696	-.197
23	.730	-.046	-.197	-.892	.362	-.954	-.197
24	-.640	.048	-.193	-.937	-.824	-2.024	-.197
25	-1.640	-.603	-.193	.378	.523	-.348	-.197
26	-2.286	-.961	-.193	-.833	-1.374	-.203	-.197

TABLE 51 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 0°$			
1	.062	-.071	.169	-.088	-.089	-.083	-.002
2	.012	-.096	.712	-.113	-.091	-.112	.056
3	-.008	-.124	.874	-.142	-.054	-.030	.126
4	-.031	-.145	.860	-.146	-.024	.002	.222
5	-.144	-.192	.716	-.131	.006	.022	.317
6	-.377	-.116	.451	-.099	.060	.047	.469
7	.083	-.075	-.171	-.060	.016	.089	.715
8	.031	-.106	-.193	-.211	-.405	.140	-.792
9	.016	-.145	-.206	-.183	-.437	.266	-.830
10	-.017	-.184	-.230	-.212	-.460	-.591	-.970
11	-.254	-.351	-.374	-.238	-.536	-.573	-1.186
12	-.645	-1.043	-1.016	-.267	-.649	-.657	-1.391
13	-.012	-.075	-.080	-.355	-1.075	-.687	-1.581
14	.371	-.071	-.152	-.834	-1.546	-.768	-2.122
15	.722	-.102	-.304	.027	.171	-.813	-.178
16	-.023	-.127	-.518	.082	.337	-.878	.341
17	.103	-.014	-.673	.127	.550	-.988	.539
18	-.103	-.165	-.198	.173	.851	-1.512	-.882
19	-.221	-.169	-.249	.259	-1.377	-.406	-2.044
20	-.722	-.229	-.296	-.788	-1.304	-.679	-.176
21	.179	-.316	-.434	-.871	-1.790	-.909	-.176
22	.383	-1.190	-.553	-.998	-2.615	-1.226	-.176
23	.779	.033	-.179	-1.090	.409	-1.500	-.176
24	-.755	.104	-.179	-1.146	-.996	-2.701	-.176
25	-1.905	-.804	-.179	.390	.611	-.656	-.176
26	-2.447	-1.171	-.179	-.963	-1.692	-.187	-.176
				$\delta_r = 20°$			
1	.036	.092	.399	.274	.128	.118	.139
2	-.014	.133	.564	.278	.159	.024	.204
3	-.014	.133	.705	.278	.187	.190	.285
4	-.026	.133	.847	.274	.185	.218	.375
5	-.221	.135	1.006	.264	.173	.237	.473
6	-.437	.176	.931	.258	.134	.249	.611
7	-.057	-.155	-.495	.142	-.024	.267	.833
8	-.136	-.224	-.472	-.436	-.593	.290	-1.000
9	-.146	-.278	-.648	-.512	-.668	.288	-1.043
10	-.174	-.386	-.859	-.590	-.707	-.763	-1.216
11	-.925	-1.108	-1.226	-.640	-.796	-.761	-1.417
12	-1.504	-1.980	-2.550	-.704	-.914	-.902	-1.688
13	.534	.188	.346	-.912	-1.428	-.876	-1.953
14	.670	.322	.271	-1.586	-1.733	-.975	-2.678
15	.735	.355	.348	.198	.301	-1.035	-.222
16	.196	.373	.198	.254	.464	-1.094	.424
17	-.128	.373	.016	.300	.664	-1.208	.513
18	-.320	-.304	-.750	.336	.921	-2.039	-1.090
19	-.682	-.308	-.754	.400	-1.583	-1.082	-2.446
20	-1.575	-.459	-1.012	-1.030	-1.401	-1.447	-.218
21	.336	-.810	-1.428	-1.068	-2.067	-1.729	-.218
22	.549	-2.247	-2.059	-1.238	-3.059	-2.110	-.218
23	.937	.202	-.212	-1.350	.458	-2.373	-.218
24	-.996	.178	-.212	-1.414	-1.132	-3.847	-.218
25	-2.543	-1.049	-.212	.398	.694	-1.200	-.218
26	-2.688	-1.502	-.212	-1.184	-2.037	-.208	-.218
				$\delta_r = 30°$			
1	-.002	.208	.499	.430	.259	.198	.214
2	-.051	.262	.666	.451	.279	.075	.260
3	-.064	.274	.763	.459	.311	.266	.337
4	-.117	.276	.825	.444	.299	.296	.421
5	-.287	.289	.891	.434	.269	.306	.518
6	-.289	.305	.930	.436	.201	.319	.653
7	-.182	-.268	-.664	.186	-.012	.321	.849
8	-.305	-.419	-.612	-.475	-.655	.343	-1.040
9	-.369	-.466	-.855	-.547	-.751	.292	-1.085
10	-.502	-.579	-1.089	-.675	-.783	-.812	-1.262
11	-1.145	-1.305	-1.539	-.782	-.871	-.831	-1.470
12	-1.316	-1.513	-1.795	-.859	-.982	-.956	-1.734
13	.504	.330	.485	-1.018	-1.516	-.919	-2.020
14	.686	.507	.380	-1.919	-1.996	-1.036	-2.748
15	.754	.551	.525	.279	.373	-1.089	-.232
16	.316	.571	.427	.333	.532	-1.147	.440
17	-.219	.511	.312	.368	.723	-1.258	.514
18	-.471	-.388	-.996	.404	.964	-2.145	-1.117
19	-1.160	-.505	-.825	.451	-1.719	-1.236	-2.514
20	-1.350	-.584	-1.441	-1.089	-1.480	-1.619	-.224
21	.371	-1.130	-1.918	-1.113	-2.215	-1.923	-.224
22	.586	-1.654	-2.179	-1.295	-3.353	-2.325	-.224
23	.945	.254	-.223	-1.396	.486	-2.593	-.224
24	-1.037	.194	-.223	-1.455	-1.237	-4.163	-.224
25	-2.652	-1.095	-.223	.408	.743	-1.302	-.224
26	-2.805	-1.532	-.223	-1.226	-2.233	-.224	-.224

TABLE 51 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 40°$			
1	-.059	.301	.593	.517	.353	.274	.253
2	-.084	.396	.711	.561	.375	.131	.316
3	-.086	.420	.758	.579	.412	.331	.387
4	-.086	.442	.794	.599	.412	.359	.476
5	-.002	.525	.816	.597	.384	.371	.565
6	-.008	.519	.874	.581	.323	.385	.696
7	-.358	-.497	-.786	.313	.183	.397	.877
8	-.458	-.701	-.581	-.369	-.556	.409	-.943
9	-.491	-.691	-.603	-.220	-.566	.377	-1.012
10	-.519	-.691	-.623	-.184	-.504	-.722	-1.125
11	-.556	-.671	-.627	-.170	-.564	-.720	-1.304
12	-.556	-.673	-.613	-.291	-.695	-.813	-1.551
13	.470	.442	.529	-.529	-.930	-.744	-1.816
14	.711	.669	.393	-.774	-.968	-.827	-2.542
15	.802	.725	.615	.335	.408	-.859	-.227
16	.497	.758	.585	.385	.570	-.901	.472
17	-.485	.695	.503	.421	.757	-.994	.540
18	-.511	-.515	-.950	.459	.974	-1.806	-1.036
19	-.548	-.697	-.962	.513	-1.614	-1.121	-2.399
20	-.550	-.606	-.593	-.964	-1.335	-1.484	-.225
21	.411	-.634	-.641	-.958	-2.040	-1.786	-.225
22	.603	-.655	-.623	-1.110	-3.135	-2.181	-.225
23	.937	.362	-.236	-1.206	.502	-2.435	-.225
24	-.951	.313	-.236	-1.250	-1.157	-3.925	-.225
25	-2.466	-.822	-.236	.423	.771	-1.117	-.225
26	-2.605	-1.059	-.236	-1.198	-1.994	-.224	-.225

TABLE 52

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.169	-.252	-.490	-.450	-.281	-.231	-.122
2	-.262	-.521	-.586	-.422	-.311	-.213	-.072
3	-.322	-.443	-.898	-.515	-.317	-.215	-.028
4	-.304	-.501	-1.104	-.477	-.287	-.199	.038
5	-.153	-.579	-1.279	-.407	-.240	-.193	.133
6	-1.127	-.751	-1.524	-.336	-.136	-.163	.275
7	-.064	.137	.339	-.248	-.088	-.131	.510
8	-.034	.235	.321	.212	.066	-.068	-.371
9	-.022	.258	.359	.289	.102	.102	-.422
10	.010	.286	.396	.324	.080	-.147	-.524
11	.111	.298	.560	.332	-.012	-.122	-.709
12	-.101	.296	.777	.330	-.098	-.187	-.878
13	-.181	-.380	-.659	.285	-.337	-.223	-1.181
14	-.382	-.513	-.966	.096	-.599	-.297	-1.434
15	-.465	-.541	-1.845	-.165	.010	-.353	-.179
16	-1.268	-.765	-2.127	-.124	.122	-.416	.259
17	.437	-.779	-2.616	-.098	.301	-.492	.506
18	.779	.199	.293	-.065	.601	-.755	-.558
19	.845	.386	.305	.018	-.770	.321	-1.311
20	.503	.628	.365	-.334	-.790	.147	-.181
21	.109	.634	.378	-.420	-1.190	-.008	-.181
22	.286	.583	.269	-.530	-1.581	-.231	-.181
23	.648	-.183	-.179	-.613	.305	-.448	-.181
24	-.423	-.080	-.179	-.682	-.599	-1.259	-.181
25	-1.195	-.308	-.179	.373	.357	-.225	-.181
26	-1.789	-.545	-.179	-.705	-1.002	-.185	-.181
				$\delta_r = -30°$			
1	-.067	-.170	-.619	-.438	-.293	-.231	-.135
2	-.155	-.228	-.661	-.506	-.337	-.210	-.082
3	-.171	-.240	-.784	-.548	-.319	-.206	-.034
4	-.141	-.255	-.804	-.550	-.275	-.182	.036
5	-.079	-.341	-.818	-.504	-.225	-.171	.131
6	-.429	-.440	-.970	-.454	-.127	-.145	.272
7	-.006	.071	.271	-.191	-.094	-.104	.505
8	.006	.137	.236	.122	-.042	-.041	-.441
9	.016	.141	.291	.201	-.026	.110	-.485
10	.036	.152	.333	.233	-.052	-.235	-.620
11	.065	.123	.559	.229	-.137	-.216	-.797
12	-.135	.121	.701	.213	-.219	-.300	-.956
13	-.121	-.349	-.986	.139	-.474	-.320	-1.256
14	-.208	-.376	-.988	-.060	-.769	-.398	-1.517
15	-.212	-.473	-1.309	-.143	.038	-.449	-.185
16	-.450	-.602	-1.625	-.096	.165	-.512	.245
17	.395	-.564	-1.068	-.046	.351	-.592	.495
18	.702	.111	.238	-.020	.651	-.882	-.592
19	.815	.255	.255	.060	-.894	.180	-1.352
20	.393	.455	.301	-.430	-.888	-.014	-.183
21	.105	.448	.277	-.494	-1.291	-.178	-.183
22	.284	.398	.136	-.606	-1.809	-.418	-.183
23	.651	-.149	-.186	-.697	.327	-.649	-.183
24	-.466	-.057	-.186	-.755	-.711	-1.539	-.183
25	-1.260	-.404	-.186	.367	.394	-.331	-.183
26	-1.875	-.653	-.186	-.761	-1.139	-.178	-.183
				$\delta_r = -20°$			
1	.090	-.104	-.455	-.334	-.213	-.159	-.075
2	.042	-.122	-.396	-.365	-.246	-.165	-.012
3	.028	-.143	-.545	-.371	-.223	-.133	.051
4	.006	-.169	-.568	-.354	-.178	-.109	.112
5	-.004	-.230	-.359	-.314	-.143	-.095	.206
6	-.137	-.277	-.523	-.261	-.072	-.062	.344
7	.088	.028	.193	-.116	-.088	-.032	.578
8	.060	.039	.152	.008	-.141	.028	-.540
9	.058	.028	.195	.077	-.154	.131	-.566
10	.048	.026	.234	.075	-.184	-.340	-.739
11	.042	-.031	.588	.067	-.264	-.320	-.923
12	-.102	-.092	.168	.037	-.338	-.427	-1.100
13	-.062	-.255	-.652	-.047	-.602	-.437	-1.360
14	-.050	-.360	-.537	-.269	-.924	-.521	-1.725
15	-.086	-.411	-.734	-.079	.092	-.571	-.173
16	-.141	-.472	-.859	-.037	.219	-.630	.275
17	.375	-.369	-.998	.002	.406	-.712	.485
18	.271	.022	.119	.045	.717	-1.082	-.688
19	.371	.122	.143	.122	-.943	-.048	-1.540
20	.056	.226	.166	-.560	-.984	-.264	-.171
21	.167	.212	.104	-.617	-1.383	-.451	-.171
22	.369	.014	-.148	-.735	-2.008	-.710	-.169
23	.753	-.104	-.176	-.825	.344	-.940	-.169
24	-.590	-.029	-.174	-.878	-.744	-1.922	-.169
25	-1.616	-.521	-.174	.363	.441	-.521	-.169
26	-2.137	-.758	-.174	-.829	-1.285	-.179	-.169

TABLE 52 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 0°$			
1	.116	-.017	.118	-.058	-.052	-.048	.010
2	.026	-.060	.400	-.082	-.070	-.080	.059
3	.024	-.079	.724	-.106	-.056	-.012	.121
4	-.002	-.104	.886	-.118	-.042	.012	.204
5	-.132	-.170	.803	-.118	-.038	.024	.294
6	-.335	-.114	.404	-.098	-.032	.042	.437
7	.128	-.037	-.124	-.090	-.131	.068	.658
8	.059	-.068	-.154	-.181	-.323	.096	-.694
9	.057	-.104	-.161	-.161	-.420	.118	-.735
10	.022	-.139	-.197	-.185	-.428	-.493	-.937
11	-.175	-.286	-.303	-.203	-.488	-.511	-1.113
12	-.602	-1.050	-.327	-.217	-.562	-.657	-1.318
13	.069	-.002	-.053	-.279	-.898	-.629	-1.528
14	.159	-.031	-.114	-.590	-1.301	-.723	-2.059
15	.675	-.079	-.191	.046	.189	-.776	-.148
16	-.022	-.112	-.339	.090	.331	-.834	.324
17	.173	-.056	-.545	.135	.526	-.908	.474
18	-.061	-.095	-.165	.163	.821	-1.433	-.816
19	-.181	-.135	-.195	.237	-1.151	-.457	-1.771
20	-.815	-.180	-.215	-.769	-1.157	-.713	-.152
21	.236	-.259	-.317	-.795	-1.675	-.922	-.152
22	.441	-.944	-.409	-.942	-2.522	-1.204	-.152
23	.819	.010	-.140	-1.034	.384	-1.435	-.152
24	-.738	.010	-.140	-1.094	-.950	-2.603	-.152
25	-1.935	-.722	-.140	.359	.532	-.884	-.152
26	-2.244	-1.000	-.140	-.962	-1.647	-.162	-.152
				$\delta_r = 20°$			
1	.086	.154	.433	.297	.168	.152	.179
2	-.028	.154	.571	.303	.178	.043	.230
3	-.040	.154	.704	.291	.198	.198	.294
4	-.050	.144	.806	.255	.170	.217	.375
5	-.190	.119	.972	.253	.128	.225	.466
6	-.416	.091	.828	.246	-.008	.227	.591
7	-.024	-.134	-.457	.008	-.267	.229	.782
8	-.160	-.202	-.462	-.402	-.494	.227	-.845
9	-.174	-.249	-.563	-.475	-.688	.081	-1.022
10	-.206	-.312	-.767	-.513	-.666	-.623	-1.177
11	-.654	-.909	-1.144	-.556	-.759	-.745	-1.337
12	-1.438	-1.842	-2.601	-.610	-.852	-.870	-1.611
13	.572	.253	.374	-.772	-1.287	-.800	-1.893
14	.708	.360	.306	-1.111	-1.836	-.909	-2.625
15	.772	.370	.383	.210	.320	-.974	-.179
16	.120	.362	.229	.257	.470	-1.034	.415
17	-.100	.251	.079	.297	.668	-1.111	.448
18	-.256	-.273	-.733	.327	.905	-1.656	-1.024
19	-.572	-.277	-.698	.368	-1.514	-1.095	-2.042
20	-1.514	-.370	-.889	-.994	-1.366	-1.413	-.175
21	.344	-.698	-1.300	-.972	-2.038	-1.668	-.173
22	.554	-2.113	-1.773	-1.154	-3.136	-2.002	-.173
23	.902	.144	-.174	-1.279	.439	-2.233	-.173
24	-.884	.030	-.172	-1.323	-1.194	-3.682	-.173
25	-2.182	-.957	-.172	.368	.615	-1.409	-.173
26	-2.612	-1.334	-.174	-1.141	-2.111	-.176	-.173
				$\delta_r = 30°$			
1	.095	.273	.533	.442	.287	.236	.262
2	-.046	.273	.691	.464	.288	.104	.318
3	-.129	.269	.750	.464	.310	.283	.383
4	-.207	.257	.787	.448	.281	.307	.469
5	-.227	.275	.774	.432	.244	.311	.556
6	-.227	.255	.764	.432	.117	.317	.684
7	-.097	-.305	-.797	.141	-.107	.315	.832
8	-.358	-.542	-.705	-.538	-.579	.305	-.897
9	-.495	-.570	-.839	-.564	-.764	.126	-1.329
10	-.606	-.642	-.945	-.554	-.708	-.703	-1.252
11	-.789	-.849	-.884	-.560	-.743	-.880	-1.422
12	-.787	-.906	-.872	-.568	-.819	-.976	-1.718
13	.549	.399	.504	-.669	-1.273	-.882	-2.039
14	.724	.544	.390	-1.145	-1.481	-.972	-2.724
15	.779	.558	.563	.283	.380	-1.016	-.205
16	.256	.554	.476	.329	.536	-1.072	.469
17	-.239	.424	.402	.359	.719	-1.126	.428
18	-.517	-.403	-1.276	.386	.934	-1.619	-1.193
19	-.775	-.583	-1.083	.432	-1.620	-1.415	-2.128
20	-.791	-.629	-1.018	-1.078	-1.423	-1.792	-.199
21	.390	-.798	-1.171	-1.048	-2.105	-2.092	-.199
22	.596	-.921	-1.234	-1.213	-3.265	-2.459	-.199
23	.918	.238	-.191	-1.311	.464	-2.705	-.199
24	-.915	.098	-.189	-1.353	-1.242	-4.345	-.199
25	-2.181	-.941	-.189	.373	.661	-1.579	-.199
26	-2.714	-1.255	-.189	-1.185	-2.008	-.198	-.199

TABLE 52 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 40°$			
1	-.044	.346	.607	.534	.364	.263	.294
2	-.107	.406	.731	.572	.393	.166	.344
3	-.089	.426	.771	.592	.417	.347	.410
4	-.087	.440	.796	.592	.385	.373	.482
5	-.016	.470	.763	.582	.332	.383	.572
6	-.018	.420	.702	.556	.211	.383	.688
7	-.423	-.502	-.808	.296	.016	.383	.842
8	-.521	-.634	-.536	-.408	-.502	.345	-.840
9	-.493	-.622	-.540	-.212	-.555	.196	-1.122
10	-.493	-.638	-.547	-.144	-.458	-.635	-1.136
11	-.507	-.620	-.563	-.110	-.520	-.802	-1.284
12	-.507	-.602	-.536	-.152	-.652	-.818	-1.558
13	.525	.494	.536	-.410	-.921	-.735	-1.842
14	.757	.684	.403	-.766	-.937	-.814	-2.522
15	.819	.726	.628	.338	.419	-.860	-.200
16	.404	.730	.581	.382	.569	-.904	.470
17	-.503	.570	.512	.414	.739	-.968	.460
18	-.503	-.594	-1.269	.440	.941	-1.359	-1.072
19	-.503	-.558	-.877	.468	-1.591	-1.435	-2.050
20	-.505	-.540	-.528	-.962	-1.314	-1.804	-.202
21	.402	-.558	-.567	-.920	-1.994	-2.098	-.200
22	.604	-.576	-.565	-1.082	-3.136	-2.473	-.200
23	.922	.298	-.213	-1.180	.486	-2.705	-.200
24	-.871	.178	-.213	-1.220	-1.235	-4.315	-.200
25	-2.129	-.754	-.213	.386	.686	-1.501	-.200
26	-2.600	-.954	-.213	-1.182	-1.836	-.214	-.200

TABLE 53

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.151	-.246	-.476	-.346	-.169	-.108	-.044
2	-.219	-.444	-.338	-.289	-.206	-.132	-.002
3	-.264	-.377	-.678	-.352	-.218	-.110	.018
4	-.290	-.403	-.836	-.281	-.198	-.097	.064
5	-.404	-.572	-.945	-.177	-.173	-.099	.133
6	-.690	-.548	-1.144	-.163	-.122	-.081	.241
7	.026	.251	.366	-.090	-.134	-.061	.435
8	.006	.261	.366	.189	.118	-.028	-.117
9	.006	.312	.374	.289	.116	.016	-.205
10	.004	.322	.393	.310	.159	.037	-.350
11	.022	.322	.468	.346	.063	-.020	-.497
12	-.046	.291	.522	.358	-.018	-.118	-.652
13	-.169	-.287	-.585	.332	-.202	-.065	-.924
14	-.316	-.395	-.619	.198	-.324	-.164	-1.171
15	-.396	-.418	-1.340	-.077	.114	-.233	-.149
16	-.759	-.607	-1.170	-.049	.202	-.302	.241
17	.567	-.629	-1.508	-.022	.363	-.371	.477
18	.849	.291	.259	.008	.619	-.590	-.262
19	.909	.424	.304	.053	-.450	.207	-.734
20	.509	.660	.372	-.234	-.558	.071	-.147
21	.153	.741	.427	-.265	-.990	-.030	-.147
22	.334	.611	.393	-.389	-1.450	-.183	-.147
23	.628	-.132	-.156	-.501	.322	-.286	-.147
24	-.159	-.100	-.158	-.574	-.434	-.842	-.147
25	-.781	-.200	-.158	.336	.318	-.428	-.147
26	-1.378	-.363	-.158	-.466	-.931	-.146	-.147
				$\delta_r = -30°$			
1	-.012	-.114	-.475	-.314	-.185	-.127	-.014
2	-.068	-.211	-.512	-.418	-.246	-.147	.028
3	-.092	-.178	-.658	-.479	-.271	-.137	.054
4	-.129	-.187	-.697	-.489	-.248	-.127	.108
5	-.086	-.254	-.768	-.444	-.193	-.129	.191
6	-.341	-.331	-.977	-.391	-.144	-.114	.307
7	.080	.162	.338	-.147	-.152	-.092	.506
8	.056	.195	.318	.165	.066	-.057	-.175
9	.052	.207	.344	.255	.029	-.006	-.317
10	.054	.207	.371	.277	.047	-.037	-.466
11	.110	.195	.492	.295	-.039	-.108	-.600
12	-.034	.164	.709	.293	-.107	-.210	-.789
13	-.080	-.178	-.773	.244	-.283	-.173	-1.060
14	-.102	-.276	-.824	.094	-.425	-.263	-1.408
15	-.173	-.339	-1.166	-.077	.094	-.331	-.153
16	-.269	-.473	-1.408	-.049	.177	-.398	.283
17	.472	-.540	-1.035	-.031	.339	-.449	.488
18	.735	.219	.232	-.006	.608	-.669	-.343
19	.855	.318	.285	.057	-.505	.212	-.914
20	.448	.501	.352	-.301	-.661	.055	-.151
21	.159	.544	.352	-.346	-1.129	-.061	-.151
22	.343	.442	.297	-.468	-1.538	-.231	-.151
23	.655	-.140	-.141	-.562	.308	-.349	-.151
24	-.211	-.099	-.143	-.619	-.450	-.973	-.151
25	-.900	-.274	-.143	.346	.310	-.443	-.151
26	-1.524	-.424	-.143	-.497	-.990	-.155	-.151
				$\delta_r = -20°$			
1	.165	-.036	-.276	-.229	-.112	-.061	
2	.099	-.071	-.220	-.305	-.160	-.099	
3	.087	-.081	-.463	-.317	-.166	-.061	
4	.058	-.085	-.473	-.305	-.142	-.049	
5	.034	-.149	-.356	-.251	-.124	-.051	
6	-.030	-.177	-.514	-.203	-.104	-.038	
7	.177	.103	.222	-.084	-.156	-.022	
8	.125	.101	.189	.060	-.010	.012	
9	.119	.101	.208	.127	-.118	.010	
10	.095	.091	.255	.143	-.080	-.132	
11	.085	.046	.506	.141	-.160	-.229	
12	-.040	.071	.895	.129	-.222	-.368	
13	.050	-.071	-.479	.064	-.413	-.294	
14	.022	-.288	-.395	-.092	-.623	-.393	
15	-.034	-.349	-.658	-.016	.158	-.457	
16	-.071	-.385	-.737	.010	.265	-.520	
17	.315	-.306	-.868	.038	.429	-.575	
18	.260	.117	.093	.072	.699	-.850	
19	.230	.181	.163	.129	-.619	-.067	
20	.387	.268	.202	-.452	-.739	-.247	
21	.202	.300	.206	-.452	-1.166	-.401	
22	.397	.246	.070	-.596	-1.776	-.609	
23	.716	-.087	-.130	-.705	.341	-.747	
24	-.282	-.087	-.130	-.769	-.553	-1.518	
25	-1.089	-.395	-.130	.341	.383	-.646	
26	-1.708	-.562	-.130	-.606	-1.166	-.123	

TABLE 53 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 0°$			
1	.140	.044	.166	.020	.034	.044	.100
2	.116	-.010	.258	-.016	.000	-.018	.146
3	.090	-.030	.235	-.034	-.002	.060	.178
4	.076	-.052	.335	-.044	-.008	.062	.242
5	-.004	-.111	.692	-.040	-.032	.060	.322
6	-.212	-.115	.402	-.028	-.092	.072	.440
7	.154	.038	-.022	-.086	-.269	.070	.622
8	.146	-.014	-.087	-.060	-.110	.082	-.374
9	.138	-.020	-.071	-.084	-.349	-.014	-.540
10	.134	-.063	-.079	-.084	-.269	-.234	-.756
11	-.020	-.214	-.170	-.106	-.363	-.367	-.880
12	-.483	-.736	-.398	-.127	-.416	-.569	-1.106
13	.128	.069	.020	-.169	-.659	-.465	-1.328
14	.084	.014	-.041	-.337	-1.205	-.559	-1.850
15	.124	-.030	-.067	.098	.255	-.625	-.094
16	.040	-.079	-.110	.125	.367	-.691	.334
17	.168	-.075	-.195	.149	.540	-.745	.478
18	.062	.014	-.073	.167	.793	-1.074	-.512
19	-.064	-.069	-.114	.217	-.918	-.471	-1.194
20	-.663	-.077	-.108	-.602	-.884	-.677	-.094
21	.244	-.149	-.140	-.588	-1.398	-.838	-.094
22	.451	-.633	-.195	-.737	-2.243	-1.052	-.094
23	.768	-.006	-.110	-.845	.378	-1.178	-.094
24	-.395	-.083	-.110	-.902	-.773	-2.054	-.094
25	-1.313	-.583	-.110	.355	.456	-1.024	-.094
26	-1.856	-.788	-.110	-.677	-1.554	-.108	-.094
				$\delta_r = 20°$			
1	.161	.234	.487	.348	.238	.204	.214
2	.036	.194	.600	.348	.236	.116	.275
3	.012	.182	.677	.318	.230	.240	.313
4	-.024	.162	.757	.304	.174	.240	.378
5	-.122	.117	.895	.268	.106	.240	.459
6	-.317	.048	.757	.231	-.090	.240	.562
7	.032	-.095	-.302	-.103	-.414	.220	.723
8	-.104	-.192	-.430	-.278	-.288	.180	-.537
9	-.120	-.192	-.462	-.376	-.606	-.084	-.846
10	-.169	-.226	-.586	-.378	-.494	-.387	-.966
11	-.416	-.586	-1.002	-.406	-.590	-.565	-1.089
12	-1.000	-1.390	-2.024	-.461	-.646	-.798	-1.370
13	.576	.311	.412	-.579	-.938	-.655	-1.640
14	.759	.414	.347	-.813	-1.966	-.737	-2.349
15	.799	.396	.408	.266	.374	-.822	-.131
16	.096	.362	.264	.300	.484	-.878	.390
17	-.018	.145	.120	.320	.658	-.946	.459
18	-.157	-.206	-.442	.340	.856	-1.359	-.691
19	-.337	-.261	-.475	.366	-1.278	-1.112	-1.406
20	-1.355	-.275	-.677	-.889	-1.094	-1.371	-.125
21	.359	-.453	-1.002	-.787	-1.700	-1.577	-.125
22	.582	-1.754	-1.361	-.986	-2.740	-1.822	-.125
23	.873	.107	-.136	-1.127	.398	-1.940	-.125
24	-.476	-.111	-.136	-1.209	-.996	-3.080	-.125
25	-1.560	-.778	-.136	.354	.520	-1.543	-.125
26	-2.100	-1.053	-.136	-.966	-1.826	-.138	-.125
				$\delta_r = 30°$			
1	.185	.376	.599	.492	.338	.289	.295
2	.024	.341	.760	.506	.348	.163	.348
3	-.024	.324	.772	.504	.344	.337	.391
4	-.108	.298	.778	.472	.279	.335	.461
5	-.222	.269	.731	.434	.204	.333	.537
6	-.236	.178	.469	.410	-.014	.325	.631
7	.010	-.269	-.605	-.150	-.352	.307	.768
8	-.244	-.382	-.705	-.378	-.379	.253	-.609
9	-.301	-.399	-.689	-.526	-.751	-.086	-1.135
10	-.430	-.523	-.868	-.518	-.589	-.472	-1.084
11	-.784	-.777	-.972	-.532	-.640	-.653	-1.178
12	-.758	-.884	-.976	-.552	-.674	-.930	-1.506
13	.570	.442	.541	-.606	-.911	-.757	-1.811
14	.762	.612	.425	-1.172	-2.287	-.815	-2.508
15	.778	.599	.575	.348	.437	-.890	-.160
16	.177	.556	.469	.372	.549	-.942	.426
17	-.167	.302	.367	.398	.702	-.996	.424
18	-.360	-.401	-.313	.396	.891	-1.444	-.787
19	-.697	-.459	-1.136	.398	-1.474	-1.476	-1.500
20	-.802	-.502	-1.044	-.990	-1.194	-1.777	-.158
21	.383	-.713	-1.265	-.858	-1.822	-1.992	-.158
22	.605	-.909	-1.417	-1.066	-2.984	-2.261	-.158
23	.890	.190	-.146	-1.182	.429	-2.345	-.158
24	-.556	-.060	-.146	-1.246	-1.101	-3.645	-.158
25	-1.699	-.818	-.146	.340	.559	-1.823	-.158
26	-2.308	-1.093	-.146	-1.034	-1.737	-.147	-.158

TABLE 53 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 40°$			
1	.159	.481	.652	.585	.418	.352	.338
2	-.040	.467	.769	.616	.438	.213	.398
3	-.054	.467	.793	.630	.434	.400	.444
4	-.054	.465	.787	.620	.378	.400	.502
5	-.008	.459	.708	.593	.296	.400	.568
6	-.026	.338	.531	.544	.086	.398	.666
7	-.257	-.350	-.771	.143	-.176	.374	.788
8	-.498	-.622	-.598	-.337	-.386	.319	-.572
9	-.512	-.618	-.579	-.258	-.608	-.016	-1.080
10	-.482	-.630	-.549	-.160	-.388	-.484	-.994
11	-.456	-.588	-.551	-.086	-.420	-.657	-1.070
12	-.456	-.571	-.503	-.055	-.476	-.850	-1.382
13	.544	.533	.531	-.157	-.894	-.667	-1.686
14	.777	.748	.394	-.718	-1.058	-.703	-2.344
15	.813	.748	.644	.399	.474	-.772	-.154
16	.319	.724	.584	.431	.584	-.815	.444
17	-.430	.445	.501	.448	.728	-.864	.440
18	-.522	-.475	-1.137	.458	.886	-1.283	-.732
19	-.468	-.634	-1.018	.472	-1.446	-1.520	-1.426
20	-.456	-.553	-.559	-.890	-1.116	-1.846	-.150
21	.428	-.521	-.555	-.753	-1.720	-2.081	-.150
22	.641	-.513	-.596	-.943	-2.834	-2.374	-.150
23	.898	.270	-.151	-1.067	.456	-2.463	-.150
24	-.518	.036	-.151	-1.129	-1.092	-3.801	-.150
25	-1.649	-.662	-.151	.366	.582	-1.752	-.150
26	-2.217	-.960	-.151	-1.031	-1.540	-.154	-.150

TABLE 54

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.157	-.285	-.477	-.266	-.209	-.188	-.125
2	-.196	-.386	-.291	-.254	-.104	-.105	.038
3	-.238	-.343	-.599	-.352	-.167	-.012	.105
4	-.238	-.329	-.693	-.284	-.149	-.043	.125
5	-.345	-.488	-.796	-.139	-.135	-.059	.182
6	-.417	-.551	-.866	-.097	-.112	-.061	.289
7	.097	.299	.317	-.064	-.161	-.049	.461
8	-.002	.217	.297	.215	.191	-.034	.055
9	.016	.268	.337	.254	.181	-.051	-.042
10	.028	.346	.395	.294	.219	.125	-.121
11	.054	.378	.395	.350	.159	.055	-.295
12	-.038	.319	.335	.374	.094	.081	-.485
13	-.185	-.356	-.531	.358	-.044	.051	-.758
14	-.296	-.335	-.531	.249	-.181	-.030	-1.105
15	-.313	-.354	-1.154	.022	.094	-.105	-.160
16	-.526	-.518	-1.044	.020	.245	-.184	.050
17	.633	-.533	-1.152	.020	.365	-.237	.327
18	.679	.498	.246	.042	.600	-.383	.059
19	.885	.366	.257	.087	-.066	.259	.026
20	.522	.520	.307	-.014	-.253	.186	-.154
21	.000	.697	.411	-.097	-.655	.125	-.154
22	.212	.663	.411	-.233	-1.153	.109	-.154
23	.603	-.104	-.148	-.352	.056	.271	-.154
24	.071	-.124	-.148	-.437	.096	.233	-.154
25	-.040	-.083	-.148	.044	.293	-.439	-.154
26	-.776	-.209	-.148	.123	-.827	-.152	-.154
				$\delta_r = -30°$			
1	-.012	-.097	-.422	-.236	-.203	-.162	-.109
2	-.062	-.176	-.446	-.334	-.125	-.081	.062
3	-.074	-.178	-.517	-.399	-.199	-.014	.128
4	-.092	-.158	-.566	-.422	-.191	-.044	.146
5	-.105	-.202	-.651	-.385	-.170	-.053	.208
6	-.244	-.261	-.824	-.322	-.139	-.057	.307
7	.131	.235	.329	-.108	-.188	-.040	.481
8	.058	.172	.279	.177	.139	-.026	.010
9	.070	.217	.307	.222	.129	-.071	-.091
10	.066	.259	.358	.251	.152	.071	-.185
11	.103	.269	.400	.306	.066	-.004	-.366
12	.016	.241	.459	.316	.014	-.014	-.560
13	-.119	-.259	-.707	.301	-.121	-.030	-.804
14	-.088	-.267	-.770	.183	-.244	-.117	-1.185
15	-.133	-.289	-.988	.039	.100	-.194	-.128
16	-.267	-.332	-1.178	.029	.234	-.259	.058
17	.598	-.478	-.836	.026	.365	-.319	.331
18	.604	.423	.283	.049	.611	-.487	.019
19	.830	.292	.253	.096	-.105	.107	-.025
20	.495	.425	.299	-.075	-.334	.002	-.140
21	.002	.583	.380	-.161	-.748	-.059	-.140
22	.209	.528	.337	-.299	-1.234	-.083	-.140
23	.610	-.121	-.139	-.417	.064	.079	-.140
24	.031	-.150	-.139	-.499	.063	-.038	-.140
25	-.080	-.156	-.139	.047	.289	-.572	-.140
26	-.869	-.271	-.139	.116	-.867	-.141	-.140
				$\delta_r = -20°$			
1	.157	-.038	-.115	-.137	-.143	-.106	-.068
2	.129	-.070	-.138	-.251	-.046	-.037	.100
3	.119	-.058	-.415	-.261	-.111	.043	.184
4	.087	-.054	-.423	-.251	-.111	.016	.196
5	.060	-.092	-.371	-.216	-.113	.008	.269
6	.008	-.156	-.493	-.157	-.133	.006	.371
7	.198	.144	.229	-.049	-.238	.006	.543
8	.159	.124	.182	.104	.069	.006	-.056
9	.159	.148	.235	.167	.010	-.084	-.198
10	.137	.146	.273	.188	.040	-.006	-.303
11	.109	.132	.449	.214	-.040	-.096	-.493
12	.040	.132	.595	.214	-.097	-.104	-.721
13	-.052	-.124	-.371	.169	-.224	-.134	-.944
14	.042	-.267	-.361	.045	-.454	-.212	-1.457
15	.024	-.321	-.589	.094	.139	-.287	-.118
16	-.006	-.307	-.654	.084	.315	-.348	.076
17	.554	-.299	-.738	.100	.442	-.391	.319
18	.339	.281	.151	.125	.671	-.589	-.022
19	.240	.168	.172	.167	-.206	-.098	-.100
20	.452	.275	.212	-.184	-.438	-.224	-.118
21	.030	.365	.283	-.263	-.823	-.306	-.118
22	.200	.339	.189	-.410	-1.506	-.332	-.118
23	.657	-.076	-.107	-.531	.077	-.143	-.118
24	-.018	-.142	-.107	-.614	.034	-.342	-.118
25	-.147	-.255	-.107	.075	.337	-.737	-.118
26	-.998	-.383	-.107	.088	-1.079	-.106	-.118

TABLE 54 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 0°$			
1	.207	.110	.773	.099	.024	.022	.054
2	.091	.045	.517	.057	.107	.054	.228
3	.085	.024	.505	.034	.058	.173	.293
4	.076	.006	.432	.012	.018	.147	.321
5	.056	-.041	.266	.008	-.032	.131	.377
6	-.125	-.077	.310	.022	-.163	.127	.485
7	.185	.035	-.053	-.087	-.383	.112	.635
8	.097	.030	-.053	-.040	-.073	.074	-.190
9	.125	.028	-.034	-.036	-.187	-.161	-.339
10	.125	.016	-.022	-.018	-.169	-.141	-.493
11	.089	-.093	-.057	-.018	-.258	-.257	-.697
12	-.286	-.447	-.284	-.047	-.304	-.321	-.944
13	.348	.067	.039	-.083	-.460	-.339	-1.212
14	.113	.114	-.063	-.235	-1.157	-.408	-1.832
15	.046	.033	-.032	.219	.260	-.492	-.080
16	.089	-.024	-.055	.211	.427	-.560	.136
17	.135	-.077	-.097	.211	.560	-.612	.343
18	.072	.045	-.093	.227	.764	-.886	-.142
19	.056	-.043	-.110	.247	-.367	-.683	-.383
20	-.425	-.022	-.071	-.383	-.651	-.847	-.084
21	.095	-.039	-.059	-.437	-1.155	-.942	-.084
22	.374	-.441	-.101	-.589	-2.042	-.994	-.084
23	.799	.006	-.091	-.719	.127	-.755	-.084
24	-.157	-.175	-.089	-.796	-.085	-1.233	-.084
25	-.380	-.439	-.089	.103	.403	-1.273	-.084
26	-1.469	-.602	-.091	.014	-1.427	-.088	-.084
				$\delta_r = 20°$			
1	.220	.350	.637	.367	.207	.181	.159
2	.044	.262	.727	.383	.317	.159	.353
3	.014	.221	.707	.361	.262	.317	.424
4	-.022	.193	.763	.321	.182	.304	.445
5	-.112	.125	.761	.275	.084	.282	.506
6	-.269	.023	.349	.216	-.209	.264	.592
7	-.022	-.119	-.311	-.114	-.611	.234	.706
8	-.130	-.168	-.371	-.234	-.231	.157	-.329
9	-.132	-.168	-.349	-.305	-.391	-.264	-.500
10	-.154	-.184	-.436	-.267	-.378	-.288	-.727
11	-.363	-.449	-.703	-.267	-.462	-.427	-.876
12	-.733	-1.037	-1.470	-.303	-.515	-.565	-1.196
13	.379	.234	.420	-.383	-.714	-.530	-1.545
14	.768	.510	.359	-.589	-2.219	-.577	-2.202
15	.806	.443	.434	.339	.350	-.673	-.124
16	.060	.375	.297	.339	.550	-.750	.137
17	-.106	.080	.149	.339	.679	-.794	.300
18	-.146	-.262	-.498	.339	.832	-1.157	-.257
19	-.311	-.227	-.418	.339	-.532	-1.308	-.612
20	-.920	-.211	-.502	-.673	-.798	-1.516	-.124
21	.178	-.365	-.733	-.603	-1.446	-1.625	-.124
22	.491	-1.391	-.980	-.790	-2.622	-1.673	-.124
23	.870	.084	-.116	-.938	.133	-1.393	-.124
24	-.281	-.234	-.116	-1.010	-.176	-2.115	-.124
25	-.693	-.637	-.116	.100	.446	-1.806	-.124
26	-1.697	-.840	-.116	-.142	-1.429	-.117	-.124
				$\delta_r = 30°$			
1	.280	.489	.645	.523	.331	.265	.227
2	.073	.418	.799	.535	.408	.212	.393
3	.029	.377	.767	.531	.369	.401	.466
4	-.012	.340	.783	.491	.273	.387	.496
5	-.141	.261	.659	.438	.157	.367	.551
6	-.214	.118	.282	.373	-.183	.342	.630
7	-.080	-.265	-.560	-.110	-.612	.299	.725
8	-.224	-.391	-.507	-.337	-.325	.204	-.399
9	-.255	-.364	-.487	-.424	-.460	-.293	-.559
10	-.271	-.337	-.611	-.361	-.438	-.360	-.810
11	-.602	-.727	-.945	-.351	-.504	-.491	-.937
12	-.710	-.824	-1.221	-.389	-.552	-.725	-1.269
13	.378	.342	.535	-.495	-.765	-.619	-1.632
14	.786	.694	.481	-1.215	-2.799	-.623	-2.265
15	.786	.634	.600	.418	.466	-.729	-.140
16	.131	.559	.462	.418	.602	-.798	.180
17	-.222	.188	.327	.418	.711	-.849	.340
18	-.263	-.391	-.757	.418	.841	-1.242	-.326
19	-.447	-.391	-.789	.418	-.707	-1.656	-.729
20	-.708	-.358	-.710	-.931	-.914	-1.890	-.142
21	.227	-.559	-.957	-.675	-1.558	-2.020	-.142
22	.535	-1.023	-1.298	-.848	-2.612	-2.073	-.142
23	.896	.143	-.134	-1.018	.177	-1.768	-.142
24	-.333	-.222	-.134	-1.105	-.269	-2.589	-.142
25	-.904	-.673	-.134	.089	.466	-2.059	-.142
26	-1.802	-.886	-.134	-.345	-1.520	-.132	-.142

TABLE 54 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 40°$			
1	.256	.585	.671	.589	.399	.318	.299
2	.080	.549	.787	.628	.482	.242	.465
3	.014	.512	.803	.628	.456	.455	.519
4	-.014	.482	.791	.602	.365	.444	.552
5	-.004	.419	.644	.555	.248	.424	.608
6	-.039	.254	.388	.490	-.048	.403	.685
7	-.287	-.392	-.770	.083	-.399	.353	.770
8	-.377	-.598	-.581	-.303	-.317	.260	-.410
9	-.457	-.579	-.593	-.234	-.409	-.233	-.564
10	-.451	-.565	-.535	-.175	-.304	-.368	-.840
11	-.439	-.543	-.508	-.100	-.331	-.475	-.838
12	-.434	-.530	-.484	-.035	-.373	-.744	-1.212
13	.381	.423	.537	-.067	-.635	-.548	-1.580
14	.814	.805	.423	-.663	-1.581	-.550	-2.154
15	.811	.774	.657	.455	.466	-.632	-.141
16	.252	.711	.577	.455	.621	-.692	.240
17	-.467	.325	.482	.455	.722	-.733	.420
18	-.467	-.384	-.955	.455	.861	-1.093	-.335
19	-.443	-.581	-.933	.455	-.617	-1.599	-.778
20	-.426	-.557	-.571	-.872	-.835	-1.849	-.143
21	.264	-.482	-.492	-.626	-1.490	-1.988	-.143
22	.584	-.482	-.545	-.785	-2.558	-2.070	-.143
23	.924	.217	-.150	-.943	.159	-1.798	-.143
24	-.346	-.144	-.150	-1.018	-.238	-2.659	-.143
25	-.988	-.537	-.150	.096	.496	-1.936	-.143
26	-1.824	-.705	-.150	-.372	-1.371	-.147	-.143

TABLE 55

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.217	-.300	-.571	-.461	-.479	-.536	-.620
2	-.316	-.408	-.804	-.523	-.539	-.376	-.711
3	-.304	-.396	-.877	-.469	-.302	-.540	-.552
4	-.254	-.373	-.893	-.397	-.068	-.444	-.438
5	-.223	-.383	-.992	-.261	-.064	-.205	-.068
6	-.282	-.460	-1.036	-.150	-.072	.006	.337
7	-.012	.258	.593	-.026	-.167	.102	.653
8	.072	.355	.545	.363	.227	.104	.062
9	.085	.343	.453	.385	.256	-.035	.060
10	.113	.381	.417	.353	.239	.094	.010
11	.213	.497	.368	.343	.247	.110	-.068
12	.123	.467	.231	.331	.209	.108	-.215
13	-.219	-.436	-.787	.305	.042	.065	-.518
14	-.310	-.544	-1.291	.158	-.258	.059	-1.155
15	-.286	-.471	-1.601	-.521	-.960	.025	-.108
16	-.455	-.538	-1.862	-.437	-.575	-.053	-.701
17	.521	-.647	-1.850	-.174	-.412	-.160	-1.223
18	.702	.351	.464	.084	.233	-.421	.307
19	.706	.623	.320	.255	.121	-.254	.592
20	.592	.479	.366	.054	.072	-.133	-.100
21	-.561	.594	.383	-.020	-.076	.270	-.100
22	-.980	.738	.368	-.082	-.505	.509	-.100
23	-.837	-.014	-.103	-.182	-.907	-.023	-.100
24	.221	-.099	-.103	-.323	.439	-1.552	-.100
25	.326	.016	-.103	-1.014	.457	-.800	-.100
26	.364	-.160	-.103	.493	-.807	-.098	-.100
				$\delta_r = -30°$			
1	-.154	-.225	-.470	-.452	-.472	-.521	-.553
2	-.259	-.280	-.661	-.538	-.575	-.348	-.652
3	-.182	-.195	-.606	-.454	-.234	-.551	-.453
4	-.105	-.129	-.568	-.365	-.044	-.412	-.354
5	-.040	-.117	-.606	-.291	-.050	-.169	.004
6	-.034	-.207	-.719	-.225	-.091	.040	.370
7	-.036	.133	.520	.141	-.228	.125	.673
8	.051	.231	.488	.281	.111	.121	-.008
9	.091	.245	.367	.317	.145	-.050	-.010
10	.121	.296	.331	.307	.161	.022	-.093
11	.182	.346	.309	.307	.145	.038	-.187
12	.137	.342	.255	.305	.071	.038	-.337
13	-.210	-.362	-.863	.261	-.085	-.012	-.652
14	-.160	-.485	-.884	.139	-.490	-.032	-1.364
15	-.061	-.465	-1.098	-.520	-.794	-.070	-.108
16	-.149	-.400	-1.046	-.448	-.571	-.153	-.738
17	.533	-.416	-.697	-.187	-.278	-.243	-1.022
18	.687	.207	.430	.096	.371	-.497	.272
19	.620	.449	.357	.273	.026	-.318	.516
20	.519	.390	.327	.006	-.056	-.195	-.106
21	-.550	.489	.315	-.084	-.240	.227	-.104
22	-1.036	.590	.285	-.159	-.782	.539	-.104
23	-.923	.026	-.098	-.263	-.796	.109	-.104
24	.168	-.105	-.098	-.396	.393	-1.326	-.104
25	.271	-.078	-.098	-.992	.470	-.861	-.104
26	.321	-.252	-.098	.480	-.925	-.091	-.102
				$\delta_r = -20°$			
1	-.048	-.130	-.300	-.386	-.353	-.422	-.517
2	-.067	-.190	-.468	-.384	-.427	-.284	-.570
3	.020	-.144	-.306	-.274	-.180	-.440	-.489
4	.091	-.092	-.239	-.197	.024	-.366	-.331
5	.113	-.064	-.239	-.143	.008	-.144	.034
6	.071	-.092	-.431	-.095	-.102	.040	.418
7	-.012	.034	.451	-.087	-.309	.158	.702
8	.063	.104	.379	.111	-.008	.154	-.108
9	.113	.104	.269	.161	.028	-.126	-.108
10	.155	.140	.229	.175	.012	-.080	-.183
11	.167	.178	.320	.193	.010	-.068	-.272
12	.107	.212	.306	.191	-.040	-.090	-.454
13	-.111	-.259	-.540	.169	-.200	-.158	-.781
14	-.056	-.319	-.526	.014	-.932	-.182	-1.465
15	.046	-.357	-.630	-.421	-.735	-.208	-.079
16	-.002	-.315	-.577	-.280	-.493	-.274	-.576
17	.369	-.236	-.605	-.012	-.259	-.368	-1.059
18	.510	.066	.257	.201	.351	-.682	.209
19	.482	.269	.227	.304	-.032	-.736	.525
20	.480	.212	.213	-.169	-.126	-.546	-.079
21	-.512	.307	.223	-.252	-.333	.046	-.077
22	-.772	.353	.170	-.320	-.882	.498	-.077
23	-.679	.036	-.095	-.443	-.804	.104	-.077
24	.085	-.150	-.095	-.584	.371	-1.270	-.077
25	.161	-.200	-.095	-.926	.491	-1.234	-.077
26	.117	-.395	-.093	.485	-.974	-.096	-.077

TABLE 55 Continued

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 0°$			
1	.048	-.049	-.004	-.095	-.160	-.201	-.242
2	.048	-.067	.171	-.129	-.189	-.209	-.462
3	.067	-.045	.443	-.081	-.057	-.230	-.218
4	.075	-.014	.618	-.028	.084	-.234	-.189
5	.081	-.016	.703	.004	.033	-.069	.103
6	-.095	-.063	.274	.004	-.205	.079	.429
7	.032	-.081	-.061	-.145	-.566	.195	.702
8	.065	-.071	-.091	-.103	-.219	.179	-.256
9	.091	-.075	-.116	-.117	-.215	-.260	-.258
10	.087	-.049	-.114	-.123	-.279	-.240	-.410
11	.073	-.093	-.073	-.087	-.230	-.220	-.550
12	-.232	-.473	-.516	-.063	-.289	-.276	-.737
13	.117	-.081	-.065	-.099	-.502	-.354	-1.092
14	.317	-.101	-.100	-.394	-1.893	-.386	-1.897
15	.648	-.030	-.232	-.186	-.547	-.404	-.071
16	.087	.026	-.321	-.139	-.297	-.457	-.523
17	-.014	-.077	-.396	.059	-.131	-.559	-.681
18	-.014	-.134	-.073	.244	.410	-.994	.128
19	-.002	-.089	-.104	.372	-.176	-1.339	.370
20	-.378	-.140	-.167	-.345	-.344	-.967	-.078
21	-.309	-.067	-.185	-.473	-.611	-.189	-.078
22	-.632	-.570	-.232	-.543	-1.258	.348	-.078
23	-.545	.071	-.077	-.632	-.826	.130	-.078
24	-.006	-.254	-.077	-.772	.305	-.943	-.078
25	.057	-.406	-.077	-.887	.480	-1.848	-.078
26	-.020	-.661	-.077	.448	-1.350	-.079	-.078
				$\delta_r = 20°$			
1	.105	.057	.160	.091	.029	-.048	-.112
2	.060	.067	.241	.087	.029	-.105	-.305
3	.017	.132	.446	.127	.102	-.052	-.119
4	-.002	.185	.620	.181	.171	-.070	-.117
5	-.041	.183	.734	.203	.084	.030	.143
6	-.227	.010	.380	.181	-.343	.169	.448
7	.066	-.142	-.534	-.207	-.918	.235	.673
8	-.083	-.195	-.534	-.380	-.408	.191	-.380
9	-.159	-.236	-.587	-.459	-.441	-.465	-.378
10	-.202	-.240	-.564	-.487	-.588	-.416	-.536
11	-.324	-.490	-.804	-.449	-.484	-.402	-.706
12	-.715	-1.169	-2.002	-.433	-.547	-.473	-.914
13	.281	.110	.129	-.511	-.849	-.602	-1.294
14	.401	.108	.108	-.960	-3.218	-.650	-2.143
15	.616	.254	.172	-.072	-.337	-.652	-.084
16	.066	.368	.135	-.087	-.106	-.688	-.346
17	-.130	.024	-.006	.052	.004	-.789	-.566
18	-.256	-.323	-.744	.231	.414	-1.386	.061
19	-.298	-.435	-.730	.374	-.308	-2.203	.339
20	-.988	-.356	-.798	-.477	-.563	-1.672	-.086
21	-.072	-.394	-.980	-.646	-.894	-.720	-.086
22	-.335	-1.732	-1.247	-.732	-1.637	.137	-.086
23	-.269	.118	-.096	-.831	-.676	.286	-.086
24	-.112	-.374	-.096	-.952	.239	-.362	-.086
25	-.072	-.632	-.096	-.817	.433	-2.676	-.086
26	-.335	-.957	-.096	.427	-1.763	-.093	-.086
				$\delta_r = 30°$			
1	.057	.112	.209	.146	.079	.033	-.063
2	-.002	.110	.231	.162	.092	-.033	-.208
3	-.030	.141	.345	.209	.149	.041	-.059
4	-.034	.210	.483	.269	.204	.041	-.047
5	-.071	.261	.550	.300	.110	.100	.196
6	-.182	.086	.272	.259	-.318	.200	.464
7	-.085	-.282	-.692	-.158	-.876	.258	.682
8	-.287	-.371	-.627	-.407	-.424	.192	-.403
9	-.304	-.418	-.643	-.496	-.470	-.562	-.407
10	-.318	-.418	-.696	-.526	-.629	-.436	-.582
11	-.538	-.676	-1.034	-.498	-.509	-.425	-.756
12	-.808	-.931	-1.659	-.510	-.560	-.532	-.951
13	.294	.202	.189	-.630	-.864	-.685	-1.342
14	.385	.190	.128	-1.348	-3.073	-.732	-2.218
15	.597	.261	.233	-.006	-.285	-.695	-.088
16	.126	.453	.258	-.006	-.041	-.708	-.285
17	-.190	.120	.148	.119	.037	-.806	-.468
18	-.340	-.355	-1.049	.277	.383	-1.554	.029
19	-.401	-.437	-1.122	.393	-.324	-2.642	.291
20	-.852	-.476	-.903	-.553	-.595	-2.078	-.084
21	-.016	-.482	-1.174	-.731	-.923	-1.039	-.084
22	-.239	-1.176	-1.554	-.812	-1.635	-.070	-.084
23	-.176	.122	-.095	-.899	-.631	.256	-.084
24	-.142	-.376	-.095	-1.018	.238	-.100	-.084
25	-.109	-.639	-.095	-.791	.409	-3.070	-.084
26	-.445	-1.043	-.095	.409	-1.780	-.086	-.084

TABLE 55 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = 40°$			
1	-.020	.124	.237	.204	.128	.073	.010
2	.000	.169	.288	.230	.134	-.017	-.109
3	-.016	.241	.376	.295	.208	.079	.033
4	-.016	.324	.481	.373	.282	.077	.037
5	-.008	.388	.515	.405	.202	.132	.243
6	-.063	.184	.307	.371	-.185	.224	.488
7	-.229	-.324	-.546	-.047	-.652	.282	.663
8	-.355	-.476	-.497	-.348	-.401	.226	-.387
9	-.347	-.465	-.669	-.369	-.430	-.508	-.403
10	-.377	-.506	-.742	-.438	-.523	-.414	-.607
11	-.548	-.733	-.824	-.365	-.412	-.406	-.774
12	-.572	-.761	-.791	-.314	-.463	-.494	-.947
13	.310	.282	.202	-.314	-.912	-.634	-1.317
14	.363	.241	.137	-.925	-1.899	-.672	-2.193
15	.590	.373	.299	.057	-.175	-.636	-.086
16	.219	.576	.366	.071	-.019	-.646	-.193
17	-.268	.235	.313	.187	.101	-.734	-.290
18	-.371	-.396	-.922	.332	.440	-1.513	.023
19	-.503	-.490	-.771	.442	-.340	-2.684	.222
20	-.582	-.473	-.900	-.568	-.607	-2.050	-.084
21	.024	-.673	-.916	-.721	-.920	-1.029	-.084
22	-.221	-.800	-1.012	-.772	-1.673	-.054	-.084
23	-.174	.171	-.100	-.853	-.578	.293	-.084
24	-.118	-.314	-.100	-.986	.214	-.063	-.084
25	-.069	-.586	-.102	-.741	.451	-3.042	-.084
26	-.375	-.955	-.102	.397	-1.695	-.090	-.084

TABLE 56

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.177	-.388	-.545	-.496	-.451	-.494	-.570
2	-.356	-.612	-.526	-.434	-.474	-.409	-.591
3	-.386	-.537	-.958	-.537	-.466	-.552	-.688
4	-.438	-.665	-1.202	-.524	-.470	-.578	-.744
5	-.866	-1.038	-1.466	-.466	-.474	-.599	-.774
6	-1.006	-1.266	-1.623	-.431	-.573	-.608	-.785
7	-.024	.181	.547	-.412	-.579	-.589	-.759
8	-.032	.269	.551	.352	.205	-.563	-.054
9	-.007	.292	.600	.457	.222	-.506	-.079
10	-.022	.318	.608	.463	.212	.050	-.101
11	-.134	.360	.753	.472	.177	.052	-.079
12	-.142	.437	.930	.463	.120	.041	-.056
13	-.190	-.354	-.730	.433	.073	.037	-.024
14	-.450	-.542	-.992	.318	.086	.028	.110
15	-.681	-.716	-1.640	-.616	-.617	.007	-.164
16	-1.108	-.962	-1.536	-.655	-.782	-.011	-.308
17	.526	-1.266	-1.862	-.680	-.835	-.002	-.353
18	.819	.318	.460	-.699	-.853	.143	.064
19	.882	.546	.485	-.663	-.079	.820	.310
20	.582	.616	.517	-.030	-.083	.851	-.168
21	-.401	.655	.475	-.039	-.011	.872	-.166
22	-.606	.706	.419	-.058	.194	.875	-.166
23	-.950	-.552	-.172	-.058	-.226	.866	-.166
24	.049	-.591	-.172	-.039	.100	.625	-.161
25	.028	.013	-.175	-.030	-.600	.154	-.164
26	.162	.038	-.168	.221	.133	-.158	-.161
				$\delta_r = -30°$			
1	-.104	-.216	-.640	-.515	-.468	-.511	-.582
2	-.168	-.274	-.734	-.608	-.528	-.425	-.605
3	-.153	-.303	-.878	-.677	-.569	-.579	-.713
4	-.132	-.353	-.919	-.713	-.576	-.615	-.764
5	-.452	-.686	-1.107	-.703	-.578	-.639	-.792
6	-1.435	-2.133	-1.757	-.765	-.651	-.647	-.805
7	.006	.117	.455	-.558	-.641	-.622	-.773
8	.032	.184	.464	.263	.123	-.596	-.110
9	.053	.197	.526	.360	.136	-.517	-.130
10	.060	.216	.537	.354	.123	-.011	-.157
11	-.040	.233	.820	.353	.086	-.011	-.132
12	-.249	.303	1.007	.351	.033	-.023	-.108
13	-.077	-.305	-.978	.312	-.007	-.030	-.070
14	-.273	-.461	-1.144	.179	.019	-.036	.068
15	-.356	-.558	-1.489	-.646	-.623	-.051	-.163
16	-1.542	-.780	-1.880	-.688	-.777	-.071	-.316
17	.540	-2.056	-1.777	-.713	-.822	-.053	-.359
18	.810	.224	.436	-.735	-.838	.109	.034
19	.870	.410	.449	-.698	-.132	.821	.293
20	.510	.474	.451	-.093	-.149	.857	-.170
21	-.414	.523	.363	-.101	-.080	.870	-.164
22	-.618	.564	.253	-.114	.136	.870	-.170
23	-.934	-.600	-.169	-.112	-.219	.857	-.168
24	.002	-.633	-.165	-.084	.067	.564	-.164
25	-.024	-.056	-.167	-.050	-.599	.162	-.166
26	.105	-.021	-.163	.205	.074	-.158	-.163
				$\delta_r = -20°$			
1	.045	-.086	-.514	-.427	-.411	-.467	-.514
2	-.007	-.144	-.557	-.476	-.464	-.387	-.529
3	-.026	-.179	-.584	-.492	-.472	-.520	-.612
4	-.039	-.226	-.631	-.496	-.458	-.552	-.656
5	-.197	-.416	-.584	-.453	-.458	-.570	-.664
6	-.954	-1.095	-1.081	-.461	-.519	-.571	-.650
7	.050	.030	.324	-.357	-.479	-.554	-.577
8	.045	.070	.324	.117	-.021	-.524	-.217
9	.050	.055	.386	.201	.002	-.429	-.253
10	.035	.068	.418	.180	-.015	-.135	-.284
11	-.017	.048	.851	.182	-.051	-.139	-.267
12	-.255	.112	.977	.175	-.087	-.156	-.255
13	-.017	-.268	-.706	.130	-.116	-.164	-.231
14	-.108	-.333	-.653	.030	-.064	-.160	-.108
15	-.162	-.426	-.859	-.571	-.572	-.175	-.155
16	-1.203	-.519	-1.028	-.603	-.701	-.189	-.259
17	.292	-.760	-1.275	-.624	-.714	-.154	-.225
18	.572	.065	.267	-.635	-.678	.032	-.032
19	.788	.221	.288	-.594	-.229	.897	.193
20	.383	.270	.282	-.199	-.261	.924	-.159
21	-.353	.283	.205	-.211	-.206	.943	-.157
22	-.511	.356	.006	-.227	-.013	.941	-.159
23	-.743	-.504	-.158	-.226	-.193	.943	-.155
24	-.071	-.517	-.153	-.192	.025	.790	-.153
25	-.121	-.162	-.158	-.032	-.473	.223	-.151
26	-.052	-.108	-.154	.192	-.038	-.164	-.149

TABLE 56 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.111	-.082	-.305	-.241	-.299	-.365	-.440
2	.069	-.125	-.321	-.271	-.339	-.301	-.457
3	.044	-.132	-.317	-.299	-.333	-.412	-.533
4	.032	-.163	-.330	-.295	-.339	-.431	-.570
5	-.067	-.259	-.332	-.277	-.350	-.448	-.579
6	-.397	-.483	-.388	-.265	-.394	-.452	-.564
7	.092	-.021	.242	-.254	-.345	-.440	-.486
8	.063	-.010	.294	-.032	-.129	-.416	-.298
9	.052	-.027	.374	.023	-.121	-.282	-.335
10	.034	-.027	.441	-.008	-.138	-.225	-.379
11	-.008	-.088	.825	-.006	-.163	-.240	-.359
12	-.219	-.059	.754	-.013	-.182	-.259	-.348
13	.071	-.184	-.369	-.051	-.201	-.265	-.321
14	-.021	-.238	-.451	-.127	-.140	-.259	-.201
15	-.084	-.299	-.470	-.475	-.487	-.272	-.151
16	-.382	-.349	-.576	-.502	-.587	-.282	-.212
17	.023	-.454	-.772	-.519	-.595	-.251	-.132
18	-.036	-.050	.071	-.528	-.532	-.055	-.096
19	.044	.056	.040	-.492	-.305	.972	.105
20	.263	.077	.035	-.295	-.345	.989	-.153
21	-.311	.067	-.063	-.309	-.301	1.004	-.153
22	-.454	.125	-.315	-.322	-.121	1.000	-.155
23	-.628	-.408	-.154	-.318	-.146	1.002	-.155
24	-.137	-.406	-.150	-.282	-.013	.932	-.151
25	-.206	-.259	-.154	.025	-.369	.301	-.155
26	-.174	-.195	-.146	.153	-.123	-.144	-.149
				$\delta_r = 0°$			
1	.120	-.056	-.110	-.137	-.223	-.301	-.369
2	.088	-.079	-.114	-.166	-.255	-.248	-.392
3	.082	-.100	-.100	-.178	-.253	-.333	-.448
4	.067	-.111	-.087	-.174	-.257	-.352	-.479
5	.019	-.180	-.176	-.164	-.263	-.368	-.479
6	-.166	-.245	.251	-.158	-.294	-.368	-.444
7	.128	-.048	-.100	-.208	-.236	-.356	-.344
8	.101	-.050	-.106	-.131	-.226	-.337	-.373
9	.088	-.077	-.064	-.112	-.225	-.190	-.409
10	.071	-.088	-.008	-.149	-.253	-.303	-.463
11	.015	-.151	.664	-.154	-.276	-.310	-.459
12	-.182	-.205	.392	-.162	-.290	-.337	-.452
13	.048	-.094	-.083	-.205	-.317	-.347	-.434
14	.212	-.103	-.112	-.272	-.257	-.339	-.340
15	.235	-.126	-.120	-.409	-.415	-.352	-.133
16	-.088	-.167	-.180	-.432	-.482	-.362	-.156
17	.073	-.209	-.226	-.448	-.455	-.324	-.035
18	-.065	-.115	-.079	-.459	-.338	-.141	-.147
19	-.122	-.096	-.114	-.417	-.413	1.002	.017
20	.075	-.096	-.124	-.382	-.480	1.011	-.135
21	-.254	-.119	-.239	-.402	-.463	1.019	-.137
22	-.363	-.121	-.419	-.419	-.322	1.015	-.139
23	-.449	-.324	-.141	-.423	-.094	1.017	-.139
24	-.214	-.314	-.139	-.378	-.075	.971	-.133
25	-.319	-.337	-.139	.029	-.244	.314	-.137
26	-.354	-.276	-.133	.131	-.271	-.128	-.133

TABLE 57

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.222	-.398	-.546	-.431	-.430	-.442	-.504
2	-.390	-.518	-.462	-.328	-.438	-.349	-.530
3	-.453	-.562	-.884	-.350	-.434	-.494	-.612
4	-.499	-.703	-.968	-.267	-.414	-.520	-.665
5	-.703	-.831	-1.099	-.190	-.404	-.516	-.693
6	-.735	-.908	-1.219	-.166	-.448	-.540	-.699
7	-.024	.233	.546	-.103	-.448	-.518	-.665
8	-.065	.295	.586	.370	.215	-.480	-.030
9	-.059	.307	.602	.486	.239	-.414	-.059
10	-.069	.325	.617	.488	.231	.070	-.089
11	-.111	.365	.728	.498	.181	.064	-.077
12	-.123	.400	.850	.488	.112	.046	-.061
13	-.238	-.373	-.730	.457	.048	.048	-.043
14	-.489	-.476	-.882	.334	.036	.030	.057
15	-.598	-.721	-1.369	-.569	-.570	.008	-.108
16	-.762	-.819	-1.041	-.605	-.717	-.014	-.240
17	.554	-.863	-1.339	-.623	-.765	-.012	-.224
18	.879	.371	.471	-.652	-.767	.082	.069
19	.935	.582	.501	-.611	-.062	.795	.301
20	.556	.645	.556	-.010	-.082	.835	-.118
21	-.352	.693	.529	-.022	-.028	.857	-.112
22	-.519	.657	.477	-.042	.157	.861	-.116
23	-.848	-.462	-.114	-.057	-.187	.859	-.112
24	.059	-.464	-.116	-.036	.100	.655	-.114
25	.053	.006	-.110	-.040	-.550	.046	-.112
26	.154	.004	-.112	.231	.070	-.106	-.108
				$\delta_r = -30°$			
1	-.086	-.205	-.546	-.418	-.412	-.482	-.498
2	-.171	-.305	-.612	-.556	-.478	-.388	-.536
3	-.193	-.301	-.815	-.650	-.530	-.562	-.603
4	-.167	-.337	-.932	-.677	-.544	-.604	-.657
5	-.342	-.638	-1.088	-.673	-.534	-.616	-.683
6	-1.250	-2.035	-1.681	-.713	-.560	-.647	-.679
7	.026	.146	.462	-.410	-.560	-.629	-.627
8	.033	.203	.518	.299	.139	-.590	-.093
9	.055	.217	.526	.390	.167	-.524	-.131
10	.067	.236	.554	.380	.147	.010	-.169
11	.006	.248	.801	.384	.098	.010	-.157
12	-.204	.266	.968	.368	.038	-.008	-.145
13	-.094	-.272	-.865	.319	-.020	-.018	-.133
14	-.238	-.400	-.986	.186	-.026	-.028	-.026
15	-.316	-.508	-1.478	-.594	-.570	-.044	-.099
16	-1.613	-.746	-1.827	-.642	-.715	-.062	-.218
17	.589	-1.768	-1.546	-.661	-.763	-.062	-.157
18	.861	.260	.444	-.693	-.781	.042	.024
19	.921	.437	.448	-.653	-.100	.757	.236
20	.499	.500	.490	-.065	-.122	.803	-.101
21	-.332	.533	.414	-.083	-.064	.827	-.097
22	-.475	.504	.297	-.101	.125	.833	-.103
23	-.743	-.561	-.100	-.115	-.177	.831	-.097
24	.012	-.559	-.098	-.099	.086	.548	-.097
25	-.024	-.059	-.102	-.050	-.576	-.022	-.101
26	.033	-.055	-.098	.212	.044	-.106	-.093
				$\delta_r = -20°$			
1	.069	-.055	-.510	-.406	-.385	-.423	-.455
2	.010	-.121	-.516	-.459	-.443	-.336	-.492
3	-.008	-.150	-.608	-.478	-.443	-.487	-.551
4	-.038	-.184	-.659	-.474	-.439	-.507	-.591
5	-.156	-.341	-.689	-.443	-.429	-.513	-.609
6	-1.030	-.824	-1.074	-.406	-.443	-.531	-.599
7	.083	.079	.355	-.333	-.415	-.509	-.532
8	.069	.109	.392	.159	.014	-.473	-.184
9	.063	.095	.406	.240	.034	-.370	-.215
10	.053	.099	.446	.222	.010	-.111	-.261
11	-.010	.079	.876	.224	-.024	-.119	-.249
12	-.202	.105	.996	.215	-.068	-.139	-.241
13	-.032	-.238	-.741	.175	-.104	-.149	-.229
14	-.079	-.323	-.633	.059	-.086	-.165	-.138
15	-.162	-.408	-.914	-.528	-.529	-.175	-.095
16	-1.255	-.501	-1.058	-.557	-.651	-.183	-.192
17	.475	-.719	-1.227	-.571	-.677	-.169	-.103
18	.598	.123	.279	-.598	-.639	-.034	-.022
19	.808	.263	.303	-.557	-.184	.889	.176
20	.408	.307	.323	-.157	-.222	.920	-.101
21	-.307	.315	.269	-.179	-.174	.936	-.101
22	-.440	.327	.098	-.197	-.002	.938	-.099
23	-.653	-.453	-.102	-.201	-.162	.942	-.105
24	-.050	-.436	-.106	-.171	.044	.851	-.099
25	-.093	-.150	-.104	.008	-.461	.107	-.099
26	-.055	-.123	-.100	.189	-.062	-.099	-.093

[redacted]

TABLE 57 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.141	-.050	-.276	-.226	-.270	-.339	-.392
2	.093	-.098	-.262	-.275	-.321	-.261	-.430
3	.085	-.122	-.304	-.291	-.313	-.389	-.486
4	.054	-.133	-.320	-.287	-.319	-.407	-.526
5	-.004	-.211	-.394	-.265	-.313	-.405	-.544
6	-.338	-.341	-.380	-.224	-.311	-.431	-.520
7	.123	.020	.242	-.212	-.272	-.417	-.452
8	.097	.024	.324	-.004	-.116	-.385	-.249
9	.082	.002	.388	.052	-.112	-.267	-.291
10	.066	.000	.416	.020	-.142	-.208	-.333
11	.024	-.054	.880	.024	-.157	-.222	-.327
12	-.179	-.056	.788	.016	-.183	-.251	-.327
13	.062	-.153	-.354	-.020	-.207	-.261	-.311
14	.010	-.235	-.410	-.090	-.173	-.271	-.211
15	-.054	-.287	-.438	-.445	-.409	-.287	-.088
16	-.322	-.333	-.524	-.479	-.488	-.287	-.165
17	.117	-.373	-.654	-.489	-.474	-.263	-.078
18	-.040	.000	.084	-.513	-.370	-.118	-.056
19	-.091	.084	.080	-.475	-.309	.946	.143
20	.320	.108	.076	-.267	-.386	.962	-.086
21	-.241	.102	.000	-.287	-.366	.974	-.084
22	-.330	.112	-.222	-.307	-.238	.976	-.082
23	-.457	-.343	-.080	-.311	-.081	.980	-.090
24	-.125	-.315	-.080	-.281	-.031	.944	-.086
25	-.195	-.271	-.082	.034	-.287	.154	-.090
26	-.227	-.231	-.078	.152	-.219	-.088	-.084
				$\delta_r = 0°$			
1	.173	-.016	-.081	-.119	-.196	-.255	-.329
2	.132	-.062	-.083	-.143	-.234	-.198	-.363
3	.124	-.072	-.085	-.155	-.232	-.295	-.406
4	.106	-.092	-.067	-.159	-.244	-.307	-.434
5	.059	-.148	-.146	-.145	-.242	-.315	-.448
6	-.102	-.194	.387	-.125	-.234	-.333	-.424
7	.169	-.018	-.075	-.141	-.196	-.325	-.337
8	.144	-.040	-.089	-.107	-.198	-.303	-.333
9	.134	-.062	-.065	-.085	-.210	-.184	-.376
10	.114	-.070	-.059	-.125	-.236	-.279	-.436
11	.061	-.130	.658	-.125	-.244	-.293	-.428
12	-.118	-.170	.466	-.127	-.269	-.327	-.428
13	.100	-.056	-.057	-.163	-.285	-.341	-.418
14	.187	-.080	-.073	-.223	-.246	-.347	-.329
15	.234	-.108	-.087	-.354	-.363	-.358	-.080
16	-.041	-.154	-.128	-.382	-.435	-.360	-.120
17	.124	-.164	-.160	-.388	-.411	-.323	.030
18	-.045	-.084	-.059	-.412	-.305	-.174	-.120
19	-.085	-.082	-.081	-.374	-.365	.970	.044
20	.106	-.088	-.089	-.366	-.445	.986	-.082
21	-.205	-.090	-.150	-.392	-.435	.990	-.080
22	-.295	-.102	-.300	-.419	-.319	.990	-.082
23	-.421	-.292	-.077	-.425	-.064	.992	-.080
24	-.148	-.264	-.073	-.386	-.054	.978	-.078
25	-.222	-.340	-.077	.080	-.224	.178	-.088
26	-.264	-.290	-.073	.111	-.303	-.067	-.078

TABLE 58

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.194	-.327	-.484	-.335	-.296	-.337	-.333
2	-.318	-.430	-.345	-.223	-.329	-.273	-.386
3	-.368	-.463	-.734	-.215	-.351	-.410	-.461
4	-.405	-.572	-.813	-.131	-.325	-.434	-.513
5	-.514	-.566	-.857	-.026	-.298	-.444	-.554
6	-.540	-.582	-.879	.028	-.284	-.473	-.562
7	.067	.325	.556	.137	-.292	-.451	-.552
8	.006	.360	.637	.392	.258	-.412	.097
9	-.012	.356	.629	.528	.292	-.368	.057
10	-.028	.362	.645	.534	.288	.152	.014
11	-.043	.392	.629	.536	.223	.137	.014
12	-.079	.372	.683	.528	.166	.121	.020
13	-.190	-.293	-.633	.480	.067	.111	.026
14	-.383	-.398	-.774	.343	.028	.095	.107
15	-.484	-.521	-1.310	-.434	-.418	.069	-.071
16	-.553	-.562	-.750	-.468	-.552	.040	-.109
17	.518	-.531	-.988	-.496	-.602	.028	-.097
18	.937	.378	.452	-.520	-.617	.048	.164
19	.980	.640	.506	-.492	.043	.693	.360
20	.540	.683	.607	.072	.000	.741	-.073
21	-.200	.691	.567	.052	.041	.766	-.067
22	-.328	.598	.550	.026	.191	.774	-.069
23	-.611	-.339	-.085	.002	-.079	.778	-.073
24	.138	-.327	-.083	.006	.170	.519	-.071
25	.130	.067	-.085	.030	-.442	-.097	-.069
26	.182	.028	-.077	.245	.065	-.085	-.067
				$\delta_r = -30°$			
1	-.062	-.169	-.382	-.282	-.276	-.309	-.352
2	-.150	-.273	-.450	-.423	-.360	-.259	-.418
3	-.142	-.217	-.641	-.517	-.441	-.409	-.512
4	-.186	-.245	-.749	-.549	-.463	-.443	-.578
5	-.303	-.394	-.962	-.551	-.435	-.465	-.632
6	-.860	-1.444	-1.659	-.563	-.427	-.495	-.650
7	.106	.237	.492	-.402	-.427	-.479	-.650
8	.062	.261	.598	.328	.193	-.437	.048
9	.068	.265	.614	.443	.227	-.345	.002
10	.054	.275	.612	.437	.203	.080	-.044
11	.024	.279	.681	.427	.129	.058	-.034
12	-.144	.229	.833	.400	.072	.030	-.028
13	-.090	-.187	-.641	.344	-.010	.010	-.012
14	-.178	-.283	-.725	.185	-.054	-.008	.086
15	-.242	-.353	-1.243	-.475	-.445	-.028	-.072
16	-1.421	-.488	-1.598	-.523	-.608	-.064	-.138
17	.557	-1.361	-1.454	-.561	-.680	-.068	-.130
18	.934	.293	.440	-.598	-.726	-.024	.132
19	.974	.494	.460	-.571	.036	.830	.340
20	.475	.548	.550	.014	-.002	.864	-.078
21	-.200	.574	.456	-.008	.054	.894	-.074
22	-.327	.436	.373	-.034	.221	.908	-.078
23	-.629	-.434	-.078	-.052	-.111	.922	-.078
24	.116	-.398	-.078	-.048	.173	.846	-.076
25	.120	-.022	-.076	.010	-.533	-.028	-.082
26	.162	-.054	-.074	.233	.056	-.070	-.072
				$\delta_r = -20°$			
1	.132	-.006	-.362	-.306	-.242	-.274	-.311
2	.055	-.072	-.312	-.400	-.343	-.227	-.380
3	.041	-.091	-.496	-.422	-.387	-.364	-.442
4	.014	-.119	-.584	-.412	-.391	-.396	-.500
5	-.104	-.266	-.616	-.387	-.367	-.408	-.534
6	-.585	-.577	-.898	-.333	-.355	-.437	-.536
7	.167	.145	.404	-.185	-.351	-.421	-.508
8	.118	.153	.446	.189	.098	-.386	-.052
9	.116	.141	.452	.278	.098	-.296	-.100
10	.093	.137	.462	.264	.076	-.010	-.153
11	.033	.119	.694	.262	.026	-.030	-.151
12	-.150	.107	.940	.247	-.014	-.064	-.149
13	.018	-.125	-.564	.201	-.062	-.085	-.143
14	-.012	-.258	-.466	.101	-.072	-.105	-.062
15	-.087	-.344	-.802	-.414	-.413	-.117	-.060
16	-.752	-.429	-.924	-.460	-.563	-.137	-.106
17	.567	-.674	-1.012	-.489	-.629	-.133	-.030
18	.622	.183	.294	-.517	-.669	-.066	.066
19	.789	.320	.334	-.487	-.030	.851	.263
20	.441	.344	.382	-.089	-.070	.885	-.062
21	-.185	.356	.342	-.118	-.022	.911	-.064
22	-.289	.296	.214	-.144	.156	.917	-.062
23	-.543	-.394	-.066	-.160	-.076	.934	-.060
24	.055	-.360	-.064	-.148	.144	.879	-.062
25	.039	-.101	-.068	.049	-.489	.000	-.062
26	.043	-.101	-.060	.203	.004	-.064	-.058

TABLE 58 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.200	.022	-.193	-.142	-.155	-.206	-.226
2	.178	-.053	-.175	-.210	-.232	-.173	-.283
3	.150	-.069	-.257	-.223	-.264	-.292	-.346
4	.134	-.090	-.265	-.227	-.272	-.317	-.391
5	.060	-.155	-.327	-.208	-.254	-.333	-.418
6	-.236	-.275	-.386	-.161	-.228	-.363	-.403
7	.192	.088	.323	-.012	-.206	-.359	-.352
8	.168	.081	.394	.056	-.002	-.331	-.106
9	.154	.059	.450	.117	-.028	-.252	-.171
10	.134	.051	.414	.076	-.062	-.083	-.234
11	.092	.014	.914	.082	-.091	-.107	-.244
12	-.090	.000	.863	.082	-.123	-.147	-.255
13	.172	-.029	-.279	.039	-.129	-.169	-.255
14	.062	-.177	-.283	-.010	-.117	-.185	-.193
15	.012	-.244	-.400	-.318	-.300	-.190	-.049
16	-.216	-.287	-.466	-.359	-.401	-.206	-.043
17	.271	-.338	-.510	-.390	-.417	-.185	.063
18	.016	.098	.129	-.414	-.359	-.099	.028
19	-.036	.163	.157	-.383	-.159	.861	.200
20	.441	.161	.141	-.179	-.232	.903	-.045
21	-.114	.171	.102	-.206	-.224	.925	-.049
22	-.192	.157	-.070	-.241	-.105	.931	-.051
23	-.355	-.318	-.058	-.249	-.020	.948	-.049
24	-.004	-.291	-.054	-.239	.067	.923	-.045
25	-.048	-.175	-.056	.087	-.294	.012	-.053
26	-.096	-.147	-.052	.159	-.165	-.054	-.043
				$\delta_r = 0°$			
1	.224	.046	-.010	-.040	-.088	-.143	-.164
2	.190	-.006	-.030	-.078	-.150	-.127	-.224
3	.175	-.022	-.026	-.088	-.158	-.222	-.275
4	.155	-.038	-.028	-.092	-.192	-.250	-.318
5	.113	-.086	-.032	-.080	-.182	-.266	-.329
6	-.030	-.114	.225	-.054	-.166	-.296	-.314
7	.222	.050	.002	-.066	-.140	-.296	-.246
8	.202	.012	-.022	-.036	-.094	-.272	-.164
9	.192	-.014	-.016	-.022	-.132	-.190	-.232
10	.171	-.024	-.024	-.060	-.174	-.141	-.302
11	.117	-.064	.545	-.060	-.194	-.173	-.318
12	-.032	-.090	.561	-.060	-.208	-.220	-.329
13	.181	.046	.002	-.092	-.204	-.238	-.337
14	.179	-.020	-.016	-.126	-.190	-.250	-.292
15	.171	-.058	-.018	-.246	-.224	-.254	-.039
16	.062	-.102	-.040	-.271	-.303	-.262	-.006
17	.208	-.092	-.075	-.295	-.287	-.238	.156
18	.004	.026	.008	-.315	-.182	-.133	-.006
19	-.032	-.014	-.018	-.287	-.255	.887	.150
20	.115	-.032	-.022	-.271	-.351	.919	-.043
21	-.065	-.028	-.042	-.313	-.369	.937	-.041
22	-.115	-.018	-.140	-.343	-.293	.946	-.041
23	-.198	-.248	-.049	-.361	.030	.960	-.041
24	-.060	-.222	-.043	-.345	.014	.948	-.039
25	-.137	-.246	-.043	.144	-.168	.038	-.045
26	-.242	-.200	-.038	.118	-.283	-.036	-.039

TABLE 59

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.163	-.317	-.493	-.336	-.292	-.300	-.313
2	-.300	-.465	-.368	-.269	-.288	-.221	-.327
3	-.412	-.481	-.746	-.352	-.316	-.338	-.407
4	-.392	-.626	-.817	-.273	-.272	-.370	-.476
5	-.531	-.636	-.952	-.107	-.233	-.384	-.528
6	-.555	-.687	-.861	-.030	-.205	-.410	-.563
7	.090	.329	.573	-.008	-.211	-.394	-.581
8	.092	.440	.694	.399	.286	-.352	.123
9	.057	.428	.726	.555	.336	-.308	.115
10	.053	.426	.664	.561	.338	.183	.089
11	-.016	.402	.664	.553	.256	.193	.111
12	-.076	.325	.469	.530	.191	.199	.115
13	-.202	-.319	-.610	.464	.064	.187	.125
14	-.425	-.428	-.692	.320	-.012	.171	.198
15	-.486	-.495	-1.646	-.377	-.342	.137	-.062
16	-.573	-.685	-.928	-.429	-.489	.099	-.099
17	.422	-.630	-1.115	-.472	-.565	.080	-.117
18	.945	.323	.447	-.504	-.650	.024	.192
19	.990	.669	.491	-.484	.131	.618	.405
20	.492	.731	.583	.160	.143	.676	-.065
21	-.167	.721	.555	.144	.199	.720	-.065
22	-.284	.521	.515	.123	.368	.746	-.069
23	-.557	-.313	-.066	.107	-.050	.751	-.067
24	.175	-.285	-.064	.091	.211	.410	-.062
25	.204	.095	-.070	.042	-.469	-.177	-.063
26	.312	.004	-.062	.275	.151	-.056	-.063
				$\delta_r = -30°$			
1	-.082	-.152	-.489	-.352	-.295	-.310	-.334
2	-.105	-.257	-.499	-.439	-.333	-.235	-.352
3	-.137	-.220	-.656	-.511	-.388	-.363	-.445
4	-.175	-.238	-.730	-.539	-.404	-.402	-.521
5	-.252	-.363	-.899	-.511	-.361	-.432	-.573
6	-.660	-1.295	-1.575	-.507	-.311	-.460	-.610
7	.111	.253	.525	-.330	-.323	-.448	-.644
8	.153	.345	.678	.346	.217	-.410	.087
9	.137	.329	.702	.473	.263	-.357	.080
10	.117	.325	.640	.467	.241	.126	.070
11	.076	.305	.686	.461	.165	.130	.091
12	-.095	.194	.547	.431	.106	.134	.089
13	-.060	-.238	-.771	.348	-.012	.120	.105
14	-.127	-.367	-.899	.157	-.074	.099	.181
15	-.195	-.365	-1.270	-.394	-.345	.073	-.064
16	-1.054	-.479	-1.555	-.449	-.482	.043	-.111
17	.467	-1.385	-1.354	-.491	-.544	.020	-.135
18	.946	.259	.461	-.523	-.594	-.024	.169
19	.990	.539	.447	-.507	.090	.625	.402
20	.453	.591	.553	.101	.084	.690	-.064
21	-.165	.587	.459	.080	.127	.742	-.062
22	-.276	.351	.382	.050	.283	.763	-.064
23	-.529	-.395	-.058	.028	-.046	.789	-.064
24	.149	-.357	-.054	.018	.185	.499	-.056
25	.165	.032	-.058	.040	-.468	-.209	-.062
26	.262	-.046	-.054	.270	.082	-.055	-.056
				$\delta_r = -20°$			
1	.128	-.024	-.358	-.301	-.255	-.251	-.280
2	.096	-.022	-.323	-.366	-.296	-.182	-.296
3	.089	-.048	-.474	-.372	-.324	-.296	-.375
4	.061	-.068	-.526	-.372	-.329	-.324	-.425
5	-.035	-.197	-.517	-.333	-.294	-.346	-.468
6	-.366	-.471	-.826	-.277	-.253	-.366	-.490
7	.175	.181	.446	-.152	-.251	-.354	-.490
8	.191	.237	.566	.218	.116	-.318	.014
9	.175	.221	.585	.329	.149	-.249	.010
10	.146	.205	.523	.315	.120	.051	-.016
11	.091	.169	.601	.305	.069	.053	-.008
12	-.093	.115	.885	.289	.039	.042	-.010
13	-.033	-.195	-.583	.234	-.039	.026	.000
14	.026	-.274	-.532	.123	-.076	.006	.073
15	-.026	-.320	-.795	-.341	-.327	-.020	-.044
16	-.557	-.368	-.871	-.388	-.453	-.051	-.071
17	.480	-.628	-.939	-.424	-.514	-.047	-.040
18	.870	.157	.315	-.457	-.551	-.036	.129
19	.839	.386	.339	-.440	.024	.767	.351
20	.449	.419	.401	.024	.014	.820	-.044
21	-.128	.412	.356	.000	.063	.864	-.046
22	-.215	.276	.297	-.026	.216	.889	-.046
23	-.404	-.318	-.047	-.050	-.033	.909	-.046
24	.091	-.276	-.047	-.051	.145	.761	-.044
25	.087	-.030	-.047	.061	-.429	-.089	-.046
26	.146	-.066	-.043	.238	.031	-.040	-.040

TABLE 59 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	.186	.002	-.183	-.113	-.136	-.169	-.198
2	.210	-.016	-.145	-.156	-.174	-.119	-.235
3	.200	-.028	-.213	-.170	-.188	-.211	-.292
4	.182	-.043	-.217	-.168	-.208	-.233	-.347
5	.088	-.091	-.191	-.148	-.188	-.262	-.390
6	-.130	-.187	-.348	-.084	-.150	-.276	-.402
7	.194	.106	.485	.016	-.134	-.280	-.388
8	.224	.138	.674	.096	.028	-.256	-.055
9	.210	.116	.702	.178	.044	-.197	-.069
10	.186	.110	.577	.150	.008	-.028	-.092
11	.130	.071	.773	.141	-.022	-.028	-.086
12	-.012	.043	.865	.143	-.044	-.036	-.092
13	.050	-.091	-.264	.102	-.066	-.056	-.086
14	.098	-.163	-.332	.043	-.058	-.072	-.014
15	.068	-.209	-.376	-.252	-.224	-.091	-.031
16	-.126	-.232	-.410	-.289	-.313	-.109	-.025
17	.357	-.262	-.425	-.320	-.343	-.089	.045
18	.120	.063	.165	-.354	-.325	-.056	.082
19	.002	.215	.177	-.342	-.050	.787	.288
20	.585	.219	.187	-.051	-.090	.835	-.031
21	-.080	.217	.167	-.076	-.068	.871	-.035
22	-.156	.169	.062	-.102	.056	.895	-.037
23	-.335	-.246	-.034	-.125	.016	.922	-.037
24	.050	-.217	-.028	-.117	.124	.833	-.033
25	.048	-.102	-.030	.113	-.273	-.060	-.031
26	.098	-.106	-.026	.213	-.064	-.024	-.025
				$\delta_r = 0°$			
1	.221	.051	.014	.002	-.059	-.118	-.131
2	.255	.037	.018	-.020	-.080	-.078	-.149
3	.237	.024	.024	-.026	-.092	-.134	-.201
4	.221	.018	.025	-.024	-.121	-.162	-.239
5	.180	-.012	.033	-.020	-.112	-.190	-.253
6	.055	-.026	.200	.026	-.088	-.208	-.251
7	.217	.061	.080	.016	-.074	-.216	-.211
8	.265	.065	.073	.004	-.051	-.202	-.114
9	.253	.041	.102	.042	-.051	-.144	-.141
10	.235	.033	.067	.014	-.090	-.104	-.195
11	.178	.018	.353	.004	-.102	-.106	-.201
12	.057	.002	.616	.012	-.112	-.122	-.215
13	.113	.016	.039	-.002	-.100	-.144	-.225
14	.312	.031	.022	-.014	-.078	-.168	-.185
15	.231	.000	.029	-.165	-.149	-.182	-.016
16	.144	-.039	.031	-.197	-.217	-.196	.022
17	.097	-.010	.012	-.229	-.217	-.172	.183
18	.045	-.004	.039	-.262	-.162	-.112	.040
19	.034	.039	.025	-.245	-.117	.832	.195
20	.176	.026	.024	-.141	-.168	.876	-.022
21	-.026	.037	.029	-.175	-.170	.908	-.022
22	-.067	.053	-.027	-.211	-.086	.922	-.022
23	-.126	-.163	-.018	-.219	.059	.950	-.020
24	-.006	-.140	-.012	-.213	.082	.904	-.018
25	-.042	-.177	-.012	.155	-.170	-.034	-.020
26	-.095	-.144	-.008	.185	-.160	-.022	-.012

TABLE 6C

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -40°$			
1	-.310	-.402	-.810	-.714	-.589	-.588	-.605
2	-.404	-.606	-.923	-.573	-.543	-.421	-.567
3	-.386	-.514	-1.125	-.622	-.463	-.559	-.593
4	-.304	-.516	-1.287	-.571	-.399	-.507	-.595
5	-.396	-.666	-1.750	-.471	-.345	-.461	-.601
6	-.992	-1.040	-1.099	-1.095	-1.076	-1.076	-1.026
7	-.161	-.170	-.162	-.161	-.162	-.169	-.147
8	.068	.058	.059	.066	.066	.058	.081
9	.223	.206	.212	.219	.208	.203	.224
10	.278	.260	.269	.278	.271	.264	.284
11	.225	.520	.758	.573	.311	.042	.143
12	.004	.302	.509	.555	.244	.107	.226
13	-.260	-.490	-.939	.459	.054	.175	.282
14	-.451	-.742	-1.299	.181	-.058	.211	.387
15	-.427	-.652	-2.531	-.577	-.589	.169	-.008
16	-1.529	-1.228	-1.917	-1.211	-1.032	-.746	-.565
17	.423	.410	.398	.404	.399	.388	.407
18	.877	.866	.863	.881	.872	.875	.883
19	.996	.990	.996	1.010	1.002	.996	1.004
20	.527	.516	.519	.533	.531	.519	.534
21	-.408	.726	.465	.135	.271	.708	-.012
22	-.567	.396	.396	.165	.495	.742	-.012
23	-.833	-.352	-.020	.179	-.172	.771	-.020
24	.068	-.290	-.012	.173	.160	.457	-.008
25	.105	.158	-.016	.012	-.487	-.239	-.016
26	.336	.098	-.002	.284	.285	.082	-.002
				$\delta_r = -30°$			
1	-.300	-.296	-.836	-.657	-.563	-.560	-.596
2	-.306	-.300	-.865	-.611	-.507	-.389	-.554
3	-.213	-.233	-.814	-.631	-.423	-.518	-.572
4	-.163	-.213	-.788	-.609	-.373	-.460	-.558
5	-.147	-.386	-.915	-.553	-.317	-.409	-.552
6	-1.024	-1.038	-1.053	-1.030	-1.014	-1.032	-.994
7	-.151	-.157	-.160	-.146	-.144	-.157	-.134
8	.076	.076	.075	.086	.080	.087	.100
9	.219	.213	.218	.216	.220	.212	.228
10	.280	.282	.287	.287	.291	.284	.310
11	.195	.419	.800	.485	.242	-.042	.088
12	-.016	.254	.693	.469	.178	.024	.160
13	-.233	-.471	-1.145	.393	.036	.091	.220
14	-.187	-.451	-1.099	-.230	-.044	.093	.236
15	-.183	-.398	-1.020	-.802	-.593	-.179	-.056
16	-.676	-.704	-.741	-.735	-.723	-.700	-.650
17	.404	.402	.412	.409	.413	.401	.426
18	.879	.883	.895	.894	.892	.887	.902
19	1.008	1.014	1.020	1.018	1.018	1.014	1.028
20	.533	.535	.541	.537	.545	.536	.558
21	-.396	.652	.442	.070	.204	.784	-.008
22	-.543	.374	.378	.112	.433	.823	-.016
23	-.809	-.328	-.014	.130	-.148	.853	-.018
24	.042	-.278	-.010	.140	.118	.671	-.014
25	.087	.123	-.010	.032	-.457	-.165	-.018
26	.175	.141	.101	.150	.188	.143	.102
				$\delta_r = -20°$			
1	-.089	-.197	-.639	-.489	-.459	-.470	-.509
2	-.046	-.146	-.553	-.410	-.417	-.315	-.475
3	.026	-.102	-.475	-.377	-.285	-.421	-.471
4	.073	-.075	-.501	-.335	-.234	-.357	-.437
5	.032	-.169	-.373	-.278	-.188	-.308	-.407
6	-1.004	-1.010	-.988	-1.004	-.988	-.976	-.972
7	-.137	-.144	-.124	-.140	-.140	-.129	-.120
8	.091	.087	.106	.091	.094	.093	.108
9	.224	.220	.228	.219	.216	.210	.228
10	.298	.299	.313	.302	.301	.298	.313
11	.192	.262	.816	.339	.140	-.121	-.012
12	.014	.187	.892	.345	.110	-.052	.044
13	-.155	-.360	-.752	.292	.046	.024	.094
14	.034	-.136	-.329	-.231	-.092	-.034	.056
15	-.036	-.122	-.248	-.337	-.375	-.290	-.198
16	-.659	-.663	-.639	-.657	-.647	-.635	-.619
17	.421	.423	.431	.426	.417	.415	.429
18	.907	.909	.912	.909	.902	.891	.916
19	1.028	1.039	1.036	1.039	1.024	1.012	1.036
20	.552	.553	.557	.564	.543	.540	.567
21	-.292	.484	.341	.004	.036	.863	.000
22	-.371	.325	.297	.034	.248	.887	-.004
23	-.460	-.238	-.006	.051	-.114	.907	-.004
24	-.069	-.193	-.006	.069	.072	.770	.002
25	-.087	.059	-.006	.047	-.257	-.060	-.002
26	.097	.098	.100	.099	.112	.095	.100

TABLE 60 Concluded

Pressure coefficients on the vertical fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_e = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_r = -10°$			
1	-.034	-.185	-.363	-.296	-.335	-.376	-.441
2	.058	-.084	-.294	-.214	-.297	-.240	-.411
3	.138	-.034	-.194	-.186	-.173	-.324	-.403
4	.178	.000	-.167	-.141	-.125	-.270	-.365
5	.140	.000	-.113	-.092	-.096	-.220	-.339
6	-.970	-.974	-.974	-.994	-.958	-.980	-.956
7	-.120	-.127	-.111	-.131	-.112	-.124	-.110
8	.106	.100	.115	.100	.116	.106	.118
9	.230	.221	.236	.222	.227	.216	.232
10	.309	.309	.327	.316	.327	.312	.331
11	.202	.149	.978	.161	.058	-.218	-.088
12	.078	.127	.845	.186	.048	-.138	-.024
13	-.100	-.279	-.397	.159	.024	-.070	.022
14	.054	.010	-.046	-.055	-.018	-.028	-.008
15	-.104	-.108	-.125	-.159	-.167	-.172	-.150
16	-.611	-.618	-.611	-.624	-.592	-.606	-.587
17	.433	.420	.442	.439	.436	.426	.447
18	.912	.908	.927	.931	.920	.912	.922
19	1.032	1.032	1.054	1.055	1.044	1.030	1.048
20	.563	.556	.575	.573	.570	.556	.577
21	-.269	.267	.131	-.096	-.042	.928	.002
22	-.361	.241	.052	-.049	.151	.952	-.004
23	-.461	-.153	-.002	-.024	-.072	.974	-.006
24	-.108	-.114	.000	.002	.036	.910	-.002
25	-.122	-.004	.000	.096	-.179	.012	-.002
26	.086	.080	.087	.084	.098	.084	.098
				$\delta_r = 0°$			
1	-.014	-.161	-.149	-.155	-.244	-.317	-.364
2	.115	-.052	-.062	-.070	-.218	-.200	-.322
3	.200	.014	.022	-.032	-.078	-.273	-.316
4	.244	.040	.060	.002	-.050	-.214	-.271
5	.242	.058	.087	.040	-.038	-.160	-.223
6	-.962	-.964	-.940	-.952	-.946	-.960	-.923
7	-.097	-.108	-.091	-.104	-.098	-.101	-.079
8	.129	.116	.129	.127	.130	.135	.144
9	.234	.225	.240	.231	.236	.234	.245
10	.335	.325	.341	.339	.337	.345	.352
11	.248	.100	.817	.016	-.022	-.299	-.178
12	.129	.092	.637	.052	-.032	-.228	-.117
13	-.091	-.207	-.056	.042	-.020	-.156	-.083
14	.063	.052	.054	.054	.054	.042	.051
15	-.093	-.098	-.085	-.088	-.102	-.103	-.081
16	-.573	-.584	-.567	-.576	-.573	-.580	-.545
17	.454	.442	.458	.448	.453	.459	.466
18	.927	.920	.933	.936	.938	.945	.945
19	1.048	1.044	1.056	1.054	1.058	1.073	1.063
20	.581	.574	.585	.582	.585	.590	.595
21	-.198	.088	.000	-.153	-.134	.952	.016
22	-.260	.135	-.095	-.118	.048	.968	.010
23	-.256	-.086	.000	-.094	-.050	.990	.012
24	-.157	-.068	.002	-.072	.002	.939	.008
25	-.194	-.068	.004	.133	-.100	.042	
26	.091	.078	.093	.092	.090	.091	

TABLE 61

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.263	-.337	-.379	-.461	-.482	-.508	-.509
2	-.506	-.540	-.555	-.527	-.510	-.518	-.507
3	-.480	-.534	-.505	-.527	-.498	-.514	-.483
4	-.494	-.522	-.503	-.515	-.466	-.510	-.462
5	-.470	-.502	-.447	-.499	-.456	-.490	-.454
6	-.512	-.474	-.421	-.473	-.440	-.478	-.442
7	-.304	-.448	-.874	-.445	-.438	-.458	-.444
8	-.464	-.679	-1.144	-.465	-.103	-.457	.231
9	-.488	-.657	-1.291	-.563	-.133	-.445	.301
10	-.498	-.506	-1.307	-.637	-.093	.051	.387
11	-.547	-.663	-1.178	-.611	-.020	.089	.513
12	-.597	-.657	-1.253	-.561	.024	.123	.626
13	.040	-.286	-.248	-.437	.052	.128	.750
14	-.522	-.490	-.395	-.283	-.062	.211	.886
15	-.542	-.526	-.501	-.517	-.510	.265	-.436
16	-.482	-.494	-.493	-.493	-.480	.324	-.489
17	-.449	-.448	-.437	-.485	-.470	.389	-.523
18	-.579	-.454	-.403	-.473	-.470	.190	.644
19	-.621	-.821	-1.267	-.447	.466	-.472	.530
20	-.640	-.903	-1.571	.242	.625	-.399	-.432
21	-.506	-.907	-.451	.325	.800	-.492	-.432
22	-.508	-.722	-1.365	.381	.950	-.383	-.432
23	-.508	-.450	-.451	.457	-.474	-.583	-.432
24	.504	-.437	-.463	.539	.736	-1.006	-.432
25	.698	.200	-1.511	-.475	-.444	-.498	-.432
26	.919	.147	-.453	.621	.726	-.453	-.432
				$\delta_e = 30°$			
1	-.220	-.329	-.376	-.465	-.512	-.508	-.525
2	-.509	-.532	-.512	-.501	-.512	-.506	-.519
3	-.515	-.534	-.480	-.497	-.510	-.504	-.489
4	-.523	-.517	-.440	-.501	-.472	-.496	-.473
5	-.413	-.489	-.412	-.479	-.452	-.471	-.465
6	-.495	-.464	-.572	-.459	-.438	-.453	-.451
7	-.281	-.341	-.580	-.426	-.437	-.445	-.450
8	-.487	-.599	-.752	-.428	-.093	-.439	.240
9	-.505	-.661	-.878	-.515	-.105	-.422	.305
10	-.531	-.521	-.804	-.525	-.056	.057	.400
11	-.533	-.605	-.726	-.507	.016	.098	.521
12	-.579	-.548	-.920	-.457	.060	.139	.632
13	.024	-.295	-.276	-.372	.071	.145	.760
14	-.543	-.477	-.360	-.210	-.048	.235	.885
15	-.527	-.523	-.454	-.497	-.516	.284	-.442
16	-.483	-.493	-.452	-.465	-.490	.341	-.491
17	-.293	-.454	-.426	-.457	-.466	.400	-.531
18	-.657	-.397	-.358	-.450	-.458	.194	.640
19	-.627	-.755	-.970	-.442	.468	-.465	.515
20	-.465	-.906	-1.180	.250	.625	-.378	-.440
21	-.505	-.906	-.434	.319	.794	-.463	-.442
22	-.511	-.605	-.928	.398	.948	-.361	-.442
23	-.527	-.432	-.432	.463	-.478	-.563	-.442
24	.501	-.421	-.436	.545	.730	-1.010	-.442
25	.707	.235	-1.132	-.459	-.444	-.476	-.440
26	.936	.164	-.432	.616	.728	-.451	-.442
				$\delta_e = 20°$			
1	-.162	-.334	-.416	-.517	-.516	-.502	-.495
2	-.475	-.501	-.501	-.527	-.514	-.500	-.497
3	-.519	-.519	-.493	-.517	-.492	-.492	-.467
4	-.523	-.515	-.497	-.505	-.442	-.476	-.445
5	-.402	-.460	-.446	-.487	-.431	-.452	-.429
6	-.444	-.424	-.420	-.455	-.417	-.428	-.421
7	-.154	-.358	-.315	-.437	-.419	-.422	-.417
8	-.457	-.528	-.448	-.289	-.052	-.414	.265
9	-.491	-.564	-.547	-.313	-.032	-.410	.329
10	-.507	-.487	-.469	-.317	.028	.086	.429
11	-.487	-.495	-.067	-.291	.085	.136	.551
12	-.519	-.407	-.299	-.257	.117	.178	.663
13	-.036	-.350	-.358	-.212	.101	.180	.776
14	-.523	-.477	-.374	-.130	-.034	.272	.900
15	-.511	-.509	-.467	-.505	-.508	.328	-.433
16	-.442	-.479	-.461	-.477	-.476	.380	-.477
17	-.117	-.418	-.436	-.457	-.450	.426	-.517
18	-.606	-.365	-.354	-.441	-.440	.214	.661
19	-.580	-.583	-.610	-.435	.484	-.432	.543
20	-.277	-.658	-.646	.299	.641	-.352	-.427
21	-.499	-.633	-.453	.363	.806	-.454	-.429
22	-.511	-.377	-.574	.437	.954	-.342	-.431
23	-.533	-.415	-.451	.509	-.482	-.574	-.431
24	.527	-.409	-.444	.585	.740	-1.032	-.427
25	.725	.269	-.610	-.481	-.419	-.448	-.431
26	.937	.185	-.451	.625	.734	-.440	-.431

TABLE 61 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	-.171	-.376	-.460	-.547	-.540	-.536	-.528
2	-.471	-.498	-.485	-.535	-.531	-.530	-.528
3	-.513	-.516	-.499	-.517	-.503	-.522	-.504
4	-.521	-.508	-.491	-.499	-.467	-.502	-.482
5	-.380	-.454	-.450	-.487	-.462	-.478	-.466
6	-.416	-.420	-.440	-.479	-.458	-.464	-.454
7	-.157	-.302	.262	-.461	-.460	-.456	-.452
8	-.408	-.392	.229	-.151	.012	-.456	.310
9	-.447	-.408	.398	-.131	.049	-.444	.373
10	-.445	-.424	.576	-.137	.114	.135	.472
11	-.384	-.330	.645	-.113	.164	.183	.593
12	-.425	-.236	.126	-.080	.181	.231	.700
13	-.161	-.408	-.458	-.078	.134	.231	.804
14	-.523	-.496	-.454	-.046	-.041	.327	.911
15	-.501	-.512	-.489	-.503	-.546	.375	-.462
16	-.423	-.470	-.473	-.475	-.515	.418	-.532
17	-.024	-.420	-.454	-.461	-.491	.456	-.577
18	-.505	-.310	-.320	-.447	-.475	.189	.685
19	-.491	-.342	-.353	-.439	.523	-.514	.532
20	.258	-.356	-.365	.342	.677	-.436	-.458
21	-.527	-.316	-.458	.406	.834	-.538	-.456
22	-.559	-.132	-.542	.477	.972	-.432	-.456
23	-.594	-.442	-.458	.539	-.521	-.659	-.460
24	.565	-.438	-.460	.598	.759	-1.088	-.460
25	.751	.308	-.373	-.511	-.454	-.476	-.460
26	.960	.188	-.452	.626	.746	-.450	-.458
				$\delta_e = 0°$			
1	-.202	-.446	-.529	-.634	-.597	-.588	-.582
2	-.473	-.544	-.514	-.626	-.587	-.584	-.588
3	-.515	-.562	-.512	-.610	-.581	-.580	-.590
4	-.519	-.548	-.508	-.604	-.560	-.568	-.574
5	-.400	-.495	-.484	-.608	-.544	-.558	-.562
6	-.448	-.489	-.490	-.628	-.536	-.536	-.542
7	-.139	-.214	.869	-.612	-.540	-.530	-.527
8	-.331	-.246	.914	-.024	.117	-.528	.361
9	-.356	-.255	.916	.026	.171	-.520	.432
10	-.337	-.373	.918	.028	.230	.209	.521
11	-.255	-.155	.878	.056	.270	.261	.635
12	-.291	-.065	.529	.082	.274	.307	.732
13	-.323	-.487	-.551	.087	.155	.299	.838
14	-.523	-.546	-.510	.064	-.052	.396	.917
15	-.507	-.554	-.535	-.573	-.597	.440	-.460
16	-.467	-.523	-.522	-.561	-.591	.472	-.590
17	.450	-.495	-.510	-.551	-.577	.496	-.627
18	.339	-.155	-.296	-.545	-.567	.167	.702
19	.788	-.073	-.237	-.527	.573	-.620	.511
20	.450	-.067	-.282	.390	.718	-.570	-.462
21	-.580	-.018	-.447	.457	.867	-.667	-.465
22	-.602	.084	-.322	.531	.964	-.562	-.467
23	-.638	-.538	-.449	.586	-.591	-.737	-.465
24	.586	-.532	-.445	.644	.780	-1.118	-.465
25	.762	.365	-.276	-.581	-.522	-.528	-.465
26	.941	.185	-.443	.622	.758	-.458	-.465
				$\delta_e = -10°$			
1	-.276	-.479	-.600	-.721	-.653	-.636	-.649
2	-.530	-.610	-.612	-.707	-.665	-.636	-.649
3	-.576	-.632	-.596	-.687	-.663	-.636	-.647
4	-.578	-.620	-.594	-.687	-.631	-.632	-.641
5	-.418	-.592	-.551	-.691	-.610	-.614	-.622
6	-.504	-.571	-.555	-.699	-.600	-.592	-.600
7	-.130	-.074	.897	-.731	-.606	-.582	-.584
8	-.286	-.072	.909	.198	.223	-.576	.412
9	-.310	-.068	.966	.269	.281	-.566	.478
10	-.284	-.292	.994	.269	.341	.288	.558
11	-.184	.050	1.002	.289	.361	.332	.673
12	-.190	.103	.716	.301	.333	.382	.761
13	-.398	-.529	-.604	.273	.171	.370	.853
14	-.606	-.608	-.563	.160	-.086	.462	.914
15	-.582	-.626	-.592	-.655	-.663	.500	-.456
16	-.522	-.588	-.565	-.641	-.661	.530	-.667
17	.470	-.559	-.557	-.629	-.651	.532	-.697
18	.908	.040	-.207	-.609	-.637	.146	.721
19	.956	.175	.175	-.595	.600	-.694	.496
20	.512	.207	.193	.475	.749	-.654	-.458
21	-.656	.266	-.459	.539	.886	-.756	-.458
22	-.668	.268	.115	.603	.950	-.658	-.464
23	-.702	-.606	-.467	.655	-.653	-.826	-.466
24	.626	-.594	-.463	.703	.793	-1.150	-.462
25	.796	.414	.207	-.663	-.588	-.576	-.460
26	.940	.181	-.463	.623	.755	-.460	-.458

TABLE 61 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	-.406	-.533	-.657	-.772	-.677	-.685	-.706
2	-.574	-.661	-.692	-.739	-.697	-.693	-.710
3	-.617	-.679	-.669	-.723	-.689	-.689	-.710
4	-.617	-.665	-.655	-.731	-.673	-.681	-.702
5	-.414	-.639	-.617	-.739	-.657	-.669	-.692
6	-.538	-.613	-.615	-.752	-.647	-.655	-.675
7	-.142	.084	.690	-.778	-.647	-.649	-.659
8	-.225	.120	.780	.378	.339	-.643	.473
9	-.241	.140	.800	.440	.398	-.629	.535
10	-.205	-.192	.829	.455	.452	.373	.617
11	-.089	.263	.849	.463	.458	.417	.720
12	-.075	.261	.712	.461	.420	.461	.807
13	-.499	-.577	-.651	.430	.199	.443	.882
14	-.653	-.637	-.631	.242	-.100	.539	.915
15	-.633	-.669	-.647	-.695	-.685	.565	-.483
16	-.552	-.629	-.635	-.695	-.681	.581	-.724
17	.442	-.599	-.623	-.681	-.679	.571	-.751
18	.884	.208	-.204	-.665	-.665	.122	.755
19	.945	.411	.393	-.657	.659	-.784	.483
20	.554	.451	.468	.531	.795	-.743	-.475
21	-.700	.505	-.486	.592	.916	-.840	-.475
22	-.696	.397	.393	.648	.954	-.750	-.475
23	-.730	-.651	-.490	.695	-.689	-.884	-.475
24	.665	-.633	-.486	.739	.825	-1.128	-.479
25	.828	.481	.450	-.715	-.620	-.631	-.477
26	.945	.192	-.488	.616	.763	-.473	-.477
				$\delta_e = -30°$			
1	-.451	-.573	-.668	-.793	-.717	-.705	-.723
2	-.575	-.663	-.712	-.756	-.739	-.717	-.723
3	-.616	-.676	-.674	-.740	-.739	-.709	-.719
4	-.622	-.673	-.658	-.750	-.725	-.705	-.717
5	-.390	-.643	-.622	-.762	-.707	-.701	-.705
6	-.547	-.629	-.618	-.785	-.697	-.685	-.692
7	-.097	.241	.708	-.817	-.701	-.679	-.678
8	-.133	.306	.824	.516	.441	-.669	.534
9	-.137	.333	.860	.575	.497	-.659	.593
10	-.095	-.067	.878	.589	.545	.441	.676
11	.024	.439	.830	.587	.533	.485	.770
12	.044	.369	.590	.579	.465	.529	.843
13	-.539	-.598	-.692	.528	.190	.499	.908
14	-.658	-.625	-.654	.270	-.144	.589	.925
15	-.634	-.655	-.656	-.711	-.723	.609	-.503
16	-.553	-.631	-.638	-.707	-.713	.617	-.729
17	.451	-.620	-.630	-.699	-.711	.587	-.745
18	.881	.353	-.146	-.689	-.707	.088	.776
19	.940	.586	.514	-.681	.693	-.830	.479
20	.602	.641	.604	.587	.814	-.800	-.501
21	-.706	.688	-.484	.642	.924	-.886	-.497
22	-.706	.457	.526	.695	.922	-.802	-.493
23	-.724	-.676	-.486	.726	-.717	-.914	-.497
24	.682	-.665	-.482	.750	.826	-1.040	-.501
25	.837	.506	.560	-.724	-.667	-.659	-.501
26	.932	.178	-.482	.618	.749	-.483	-.501
				$\delta_e = -40°$			
1	-.498	-.605	-.645	-.753	-.719	-.694	-.700
2	-.569	-.667	-.675	-.726	-.743	-.708	-.700
3	-.591	-.673	-.647	-.724	-.758	-.710	-.702
4	-.597	-.660	-.635	-.738	-.770	-.710	-.704
5	-.371	-.652	-.611	-.763	-.731	-.696	-.696
6	-.542	-.636	-.617	-.793	-.713	-.692	-.684
7	-.044	.405	.710	-.871	-.705	-.688	-.670
8	-.016	.494	.779	.620	.513	-.686	.573
9	-.010	.521	.822	.669	.572	-.675	.632
10	.040	.053	.836	.681	.608	.525	.702
11	.157	.599	.787	.677	.582	.560	.789
12	.177	.459	.562	.656	.501	.606	.852
13	-.577	-.619	-.665	.579	.190	.566	.907
14	-.617	-.632	-.641	.282	-.166	.663	.911
15	-.601	-.654	-.639	-.693	-.711	.684	-.490
16	-.550	-.634	-.625	-.687	-.707	.673	-.706
17	.474	-.630	-.621	-.679	-.711	.639	-.721
18	.899	.498	-.097	-.675	-.705	.071	.785
19	.948	.751	.505	-.671	.717	-.838	.480
20	.629	.805	.572	.638	.830	-.822	-.492
21	-.704	.829	-.499	.689	.925	-.874	-.494
22	-.694	.488	.469	.730	.915	-.819	-.490
23	-.710	-.695	-.505	.761	-.715	-.901	-.496
24	.720	-.700	-.501	.783	.826	-.921	-.494
25	.859	.543	.511	-.691	-.667	-.653	-.494
26	.935	.173	-.503	.630	.739	-.495	-.496

TABLE 62

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.065	-.027	-.397	-.422	-.482	-.519	-.551
2	-.046	-.023	-.429	-.456	-.490	-.546	-.670
3	-.024	.148	-.454	-.510	-.526	-.536	-.592
4	.022	.222	-.492	-.540	-.532	-.525	-.604
5	-.123	-.016	-.514	-.552	-.526	-.521	-.517
6	-.125	-.154	-.504	-.552	-.506	-.505	-.491
7	-.178	-.259	-.401	-.546	-.508	-.493	-.491
8	-.287	-.456	-.633	-.351	-.137	-.485	.103
9	-.384	-.382	-.740	-.388	-.141	-.481	.163
10	-.285	-.296	-.813	-.466	-.116	-.041	.254
11	-.137	-.409	-.865	-.468	-.066	.000	.370
12	-.307	-.452	-1.127	-.454	-.018	.035	.477
13	.079	.025	-.212	-.402	.064	.033	.604
14	.341	-.199	-.403	-.271	.026	.116	.811
15	.598	.170	-.423	-.552	-.757	.159	-.429
16	-.077	.509	-.502	-.550	-.586	.216	-.940
17	-.180	-.312	-.510	-.588	-.629	.301	-.926
18	-.440	-.308	-.200	-.552	-.526	.318	.521
19	-.469	-.501	-.716	-.520	.333	-.151	.575
20	-.374	-.579	-1.091	.143	.502	-.094	-.427
21	-.596	-.708	-.427	.191	.689	-.222	-.425
22	-.735	-.587	-1.119	.259	.932	-.204	-.425
23	-.897	-.637	-.425	.323	-1.562	-.719	-.427
24	.380	-1.168	-.425	.408	.643	-1.507	-.427
25	.602	.152	-1.135	-1.645	-.494	-.589	-.429
26	.925	.207	-.427	.482	.703	-.432	-.427
				$\delta_e = 30°$			
1	-.096	-.171	-.373	-.374	-.429	-.479	-.567
2	-.151	-.256	-.412	-.424	-.444	-.507	-.630
3	-.200	-.290	-.445	-.463	-.482	-.513	-.599
4	-.239	-.286	-.482	-.485	-.494	-.523	-.648
5	-.251	-.429	-.482	-.509	-.482	-.477	-.769
6	-.349	-.444	-.459	-.505	-.462	-.411	-1.332
7	-.116	-.185	-.615	-.497	-.466	-.546	-1.907
8	-.155	-.294	-.697	-.438	-.192	-.800	.093
9	-.194	-.333	-.832	-.499	-.192	-1.658	.160
10	-.231	-.204	-.762	-.505	-.145	-.037	.267
11	-.298	-.448	-.699	-.495	-.081	.010	.407
12	-.386	-.470	-.887	-.461	-.030	.047	.540
13	.053	-.063	-.289	-.388	.071	.063	.696
14	-.286	-.300	-.406	-.214	.034	.141	.905
15	-.363	-.363	-.408	-.519	-.694	.208	-.435
16	-.353	-.440	-.484	-.515	-.548	.263	-.897
17	-.192	-.500	-.484	-.642	-.607	.358	-.907
18	-.298	-.339	-.264	-.661	-.714	.232	.506
19	-.386	-.504	-.971	-.556	.317	-2.116	.545
20	-.284	-.655	-1.152	.127	.488	-2.255	-.433
21	-.616	-.720	-.449	.190	.679	-2.073	-.433
22	-.780	-.532	-.951	.259	.917	-1.462	-.435
23	-.920	-.534	-.449	.325	-1.444	-1.255	-.435
24	.361	-.512	-.449	.424	.625	-1.479	-.433
25	.576	.109	-1.117	-1.594	-.474	-2.676	-.433
26	.912	.183	-.447	.497	.690	-.409	-.429
				$\delta_e = 20°$			
1	-.129	-.262	-.386	-.425	-.446	-.446	-.488
2	-.263	-.380	-.438	-.433	-.440	-.469	-.575
3	-.310	-.427	-.440	-.447	-.440	-.442	-.502
4	-.382	-.469	-.458	-.453	-.420	-.436	-.496
5	-.345	-.473	-.434	-.453	-.407	-.424	-.435
6	-.459	-.453	-.406	-.437	-.401	-.400	-.415
7	-.127	-.280	-.418	-.410	-.399	-.394	-.417
8	-.265	-.427	-.494	-.352	-.159	-.391	.087
9	-.316	-.461	-.608	-.376	-.143	-.391	.150
10	-.369	-.366	-.520	-.372	-.090	-.053	.233
11	-.400	-.481	-.108	-.352	-.022	-.010	.358
12	-.465	-.419	-.322	-.322	.022	.022	.466
13	-.022	-.191	-.364	-.274	.108	.022	.601
14	-.398	-.406	-.412	-.151	.067	.099	.804
15	-.486	-.453	-.422	-.477	-.654	.156	-.443
16	-.453	-.487	-.440	-.459	-.487	.207	-.868
17	-.098	-.431	-.430	-.435	-.503	.296	-.838
18	-.449	-.300	-.292	-.408	-.460	.323	.514
19	-.482	-.541	-.620	-.396	.324	-.055	.591
20	-.124	-.618	-.670	.135	.493	.000	-.439
21	-.598	-.614	-.428	.199	.678	-.108	-.439
22	-.735	-.392	-.662	.262	.925	-.065	-.437
23	-.757	-.406	-.426	.318	-1.464	-.540	-.439
24	.380	-.400	-.428	.419	.635	-1.286	-.433
25	.586	.143	-.666	-1.573	-.397	-.485	-.441
26	.916	.201	-.430	.505	.699	-.424	-.437

TABLE 62 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	-.155	-.303	-.434	-.493	-.494	-.467	-.520
2	-.313	-.407	-.456	-.491	-.467	-.503	-.611
3	-.373	-.427	-.444	-.485	-.453	-.475	-.523
4	-.435	-.453	-.434	-.476	-.430	-.459	-.504
5	-.371	-.435	-.426	-.468	-.428	-.444	-.461
6	-.456	-.403	-.415	-.460	-.418	-.418	-.441
7	-.143	-.281	-.114	-.449	-.416	-.408	-.434
8	-.298	-.365	-.169	-.231	-.096	-.402	.141
9	-.347	-.379	-.012	-.221	-.068	-.402	.203
10	-.381	-.385	.077	-.225	-.018	-.006	.293
11	-.379	-.351	.546	-.208	.035	.040	.416
12	-.450	-.269	.147	-.179	.070	.081	.520
13	-.042	-.271	-.426	-.163	.125	.083	.662
14	-.435	-.429	-.448	-.085	.076	.158	.846
15	-.496	-.445	-.428	-.520	-.666	.208	-.430
16	-.440	-.427	-.442	-.501	-.492	.246	-.957
17	-.022	-.403	-.428	-.480	-.480	.331	-.891
18	-.446	-.279	-.310	-.447	-.445	.331	.553
19	-.456	-.357	-.371	-.429	.342	-.093	.607
20	.260	-.377	-.389	.184	.500	-.040	-.432
21	-.615	-.359	-.432	.233	.682	-.145	-.432
22	-.798	-.184	-.625	.307	.920	-.085	-.430
23	-.788	-.413	-.436	.357	-1.488	-.531	-.434
24	.387	-.389	-.432	.458	.635	-1.349	-.432
25	.589	.196	-.411	-1.656	-.412	-.503	-.432
26	.903	.244	-.430	.509	.691	-.422	-.432
				$\delta_e = 0°$			
1	-.218	-.382	-.510	-.470	-.509	-.499	-.545
2	-.346	-.431	-.441	-.510	-.511	-.545	-.648
3	-.389	-.453	-.427	-.528	-.495	-.513	-.555
4	-.430	-.459	-.423	-.526	-.473	-.503	-.528
5	-.346	-.459	-.421	-.528	-.481	-.491	-.482
6	-.403	-.413	-.457	-.514	-.479	-.469	-.453
7	-.175	-.242	.842	-.478	-.481	-.457	-.455
8	-.279	-.254	.915	-.101	-.010	-.461	.188
9	-.310	-.258	.917	-.056	.030	-.457	.251
10	-.318	-.327	.921	-.060	.093	.060	.336
11	-.265	-.199	.830	-.040	.136	.103	.462
12	-.316	-.087	.581	-.008	.158	.143	.561
13	-.220	-.392	-.524	.006	.181	.143	.688
14	-.426	-.459	-.462	.058	.093	.231	.864
15	-.432	-.459	-.433	-.516	-.706	.260	-.441
16	-.399	-.441	-.445	-.496	-.525	.310	-.994
17	.136	-.411	-.449	-.474	-.507	.376	-.927
18	-.383	-.193	-.289	-.456	-.489	.346	.563
19	-.185	-.138	-.223	-.446	.389	-.143	.601
20	.413	-.130	-.314	.232	.558	-.087	-.441
21	-.627	-.079	-.451	.290	.730	-.217	-.435
22	-.776	.102	-.403	.351	.947	-.143	-.437
23	-.688	-.472	-.441	.405	-1.521	-.606	-.439
24	.426	-.478	-.441	.496	.667	-1.461	-.435
25	.627	.248	-.332	-1.637	-.448	-.569	-.435
26	.921	.246	-.447	.508	.732	-.427	-.435
				$\delta_e = -10°$			
1	-.305	-.425	-.559	-.495	-.555	-.574	-.603
2	-.387	-.472	-.527	-.559	-.588	-.647	-.711
3	-.417	-.480	-.543	-.595	-.561	-.594	-.603
4	-.435	-.482	-.570	-.587	-.520	-.580	-.583
5	-.377	-.464	-.818	-.605	-.533	-.546	-.539
6	-.401	-.439	-1.416	-.611	-.529	-.514	-.505
7	-.176	-.142	.715	-.599	-.533	-.504	-.499
8	-.236	-.111	.828	.106	.098	-.504	.244
9	-.253	-.103	.898	.164	.149	-.500	.305
10	-.236	-.235	.941	.176	.210	.151	.393
11	-.164	.016	1.010	.202	.243	.195	.503
12	-.180	.121	.799	.222	.245	.241	.603
13	-.361	-.455	-.586	.220	.220	.227	.719
14	-.433	-.486	-.473	.196	.094	.313	.884
15	-.441	-.490	-.514	-.591	-.833	.359	-.451
16	-.425	-.457	-.822	-.567	-.659	.380	-1.084
17	.491	-.433	-1.166	-.525	-.745	.442	-1.008
18	.820	-.030	-.180	-.499	-.859	.351	.593
19	.894	.097	.121	-.479	.443	-.253	.587
20	.503	.142	.150	.305	.598	-.203	-.455
21	-.731	.217	-.441	.363	.769	-.482	-.453
22	-.946	.340	-.027	.427	.963	-.327	-.451
23	-.890	-.518	-.441	.487	-1.733	-.821	-.457
24	.469	-.518	-.436	.553	.673	-1.715	-.455
25	.673	.322	.129	-1.756	-.498	-.624	-.453
26	.956	.294	-.439	.501	.749	-.442	-.455

TABLE 62 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	-.404	-.503	-.565	-.511	-.592	-.632	-.661
2	-.421	-.503	-.527	-.584	-.647	-.727	-.781
3	-.449	-.509	-.515	-.660	-.592	-.653	-.667
4	-.459	-.505	-.509	-.630	-.556	-.630	-.651
5	-.364	-.503	-.485	-.656	-.564	-.595	-.578
6	-.429	-.489	-.475	-.690	-.562	-.571	-.552
7	-.195	-.014	.543	-.692	-.556	-.563	-.544
8	-.193	.059	.627	.296	.223	-.556	.316
9	-.193	.085	.651	.360	.279	-.550	.375
10	-.169	-.154	.703	.376	.339	.230	.462
11	-.073	.220	.880	.400	.363	.271	.574
12	-.065	.297	.918	.410	.347	.316	.669
13	-.453	-.513	-.613	.400	.277	.298	.781
14	-.455	-.509	-.503	.300	.116	.392	.911
15	-.476	-.501	-.491	-.618	-.845	.423	-.467
16	-.443	-.481	-.485	-.596	-.647	.448	-1.140
17	.443	-.453	-.481	-.557	-.693	.491	-1.085
18	.868	.117	-.170	-.529	-.795	.333	.627
19	.927	.317	.345	-.507	.492	-.372	.572
20	.606	.384	.425	.388	.647	-.322	-.465
21	-.780	.457	-.457	.445	.815	-.665	-.465
22	-.919	.487	.365	.501	.982	-.466	-.465
23	-.835	-.537	-.461	.543	-1.749	-.945	-.465
24	.535	-.527	-.457	.606	.699	-1.860	-.467
25	.720	.390	.425	-1.791	-.524	-.688	-.465
26	.984	.307	-.457	.505	.783	-.470	-.465
				$\delta_e = -30°$			
1	-.437	-.577	-.536	-.535	-.625	-.636	-.658
2	-.433	-.557	-.544	-.662	-.679	-.721	-.791
3	-.452	-.571	-.532	-.730	-.642	-.678	-.658
4	-.470	-.563	-.521	-.691	-.621	-.658	-.631
5	-.324	-.553	-.491	-.730	-.630	-.626	-.605
6	-.429	-.553	-.485	-.786	-.626	-.603	-.582
7	-.164	.129	.581	-.797	-.623	-.591	-.570
8	-.121	.229	.742	.436	.323	-.581	.375
9	-.117	.270	.796	.485	.377	-.565	.436
10	-.080	-.090	.828	.502	.432	.326	.512
11	.035	.412	.857	.514	.438	.362	.613
12	.064	.437	.840	.523	.414	.403	.703
13	-.493	-.533	-.613	.500	.298	.383	.801
14	-.466	-.543	-.521	.361	.107	.468	.924
15	-.481	-.537	-.513	-.664	-.870	.496	-.451
16	-.439	-.517	-.497	-.639	-.650	.518	-1.139
17	.409	-.503	-.499	-.614	-.625	.540	-1.072
18	.850	.266	-.123	-.597	-.650	.334	.648
19	.920	.515	.493	-.575	.537	-.453	.576
20	.661	.588	.568	.436	.685	-.389	-.453
21	-.768	.650	-.454	.488	.842	-.536	-.451
22	-.922	.586	.532	.544	.988	-.425	-.453
23	-.778	-.612	-.458	.591	-1.698	-.816	-.447
24	.558	-.596	-.456	.635	.722	-1.747	-.451
25	.735	.453	.558	-1.819	-.562	-.704	-.449
26	.971	.322	-.452	.498	.800	-.457	-.447
				$\delta_e = -40°$			
1	-.418	-.583	-.530	-.490	-.634	-.630	-.675
2	-.432	-.569	-.536	-.719	-.705	-.726	-.791
3	-.448	-.579	-.526	-.715	-.711	-.663	-.663
4	-.458	-.569	-.512	-.725	-.648	-.644	-.633
5	-.287	-.549	-.476	-.771	-.667	-.614	-.618
6	-.426	-.543	-.464	-.809	-.671	-.600	-.596
7	-.088	.300	.657	-.898	-.665	-.596	-.584
8	-.024	.421	.754	.558	.427	-.589	.434
9	-.004	.467	.804	.616	.486	-.573	.490
10	.039	.054	.815	.639	.524	.388	.566
11	.159	.596	.819	.649	.518	.423	.663
12	.200	.563	.734	.643	.484	.467	.751
13	-.491	-.525	-.562	.596	.317	.437	.839
14	-.460	-.527	-.518	.404	.073	.524	.946
15	-.468	-.527	-.512	-.651	-.876	.543	-.478
16	-.432	-.507	-.480	-.635	-.665	.555	-1.143
17	.424	-.491	-.482	-.616	-.646	.569	-1.086
18	.866	.427	-.071	-.596	-.671	.319	.677
19	.931	.692	.484	-.580	.573	-.474	.584
20	.717	.755	.558	.506	.720	-.407	-.476
21	-.774	.823	-.468	.548	.866	-.547	-.478
22	-.927	.668	.492	.602	.990	-.437	-.478
23	-.756	-.612	-.466	.643	-1.715	-.801	-.482
24	.593	-.600	-.464	.679	.732	-1.679	-.480
25	.762	.503	.530	-1.801	-.585	-.699	-.478
26	.982	.330	-.472	.522	.805	-.465	-.480

TABLE 63

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.085	.093	.214	.139	-.004	-.154	-.324
2	-.004	.212	.221	.175	-.046	-.226	-.578
3	.027	.250	.322	.237	.014	-.211	-.459
4	.045	.261	.383	.257	-.083	-.183	-.655
5	-.085	.218	.336	.229	-.206	-.295	-.914
6	-.155	.210	.101	.147	-.592	-.392	-1.086
7	-.264	-.378	-.794	-.086	-1.176	-.467	-1.575
8	-.297	-.539	-.932	-.561	-.319	-.585	-.116
9	-.219	-.438	-1.056	-.584	-.323	-1.152	-.069
10	-.165	-.174	-1.093	-.624	-.293	-.232	.008
11	-.155	-.507	-1.029	-.567	-.226	-.203	.129
12	-.882	-.715	-1.151	-.518	-.160	-.177	.245
13	.276	.206	.177	-.459	.008	-.165	.390
14	.511	.323	.163	-.257	.085	-.104	.655
15	.559	.517	.299	-.314	-1.059	-.053	-.400
16	.315	.509	.250	-.373	-.689	.006	-.594
17	-.270	.457	.089	-.543	-1.170	.114	-1.394
18	-.497	-.521	-.078	-.667	-1.970	.348	.316
19	-.563	-.642	-1.068	-.755	.087	-.295	.576
20	-.761	-.665	-1.687	-.098	.250	-.364	-.396
21	-.458	-.747	-.386	-.045	.461	-.512	-.398
22	-1.394	-.705	-1.482	.022	.804	-.331	-.396
23	-1.792	-.392	-.390	.082	-.863	-.663	-.400
24	.167	-.903	-.386	.178	.428	-1.774	-.396
25	.367	-.067	-2.006	-.939	-1.331	-.742	-.392
26	.783	.133	-.386	.445	.566	-.398	-.396
				$\delta_e = 30°$			
1	-.058	.049	.113	.028	-.102	-.238	-.418
2	-.004	.103	.127	.072	-.157	-.358	-.765
3	.012	.125	.236	.127	-.098	-.311	-.594
4	.026	.134	.291	.135	-.203	-.281	-.767
5	-.091	.095	.265	.086	-.335	-.398	-1.062
6	-.147	-.016	-.261	-.064	-.757	-.499	-1.277
7	-.095	-.194	-.703	-.410	-1.371	-.574	-1.851
8	-.129	-.231	-.715	-.448	-.261	-.699	-.060
9	-.085	-.253	-.808	-.464	-.267	-1.356	-.012
10	-.060	-.061	-.739	-.466	-.217	-.180	.072
11	-.073	-.312	-.592	-.458	-.151	-.145	.205
12	-.262	-.419	-.774	-.416	-.094	-.115	.315
13	.246	.119	.107	-.388	.062	-.105	.468
14	.450	.176	.145	-.191	.104	-.034	.723
15	.494	.354	.244	-.436	-1.243	.016	-.390
16	.091	.316	.182	-.470	-.793	.067	-.721
17	-.222	.049	-.170	-.657	-1.323	.174	-1.598
18	-.349	-.407	-.123	-.787	-2.253	.366	.359
19	-.317	-.451	-1.119	-.861	.145	-.568	.576
20	-.157	-.534	-1.152	-.038	.321	-.669	-.396
21	-.544	-.569	-.400	.016	.536	-.820	-.392
22	-1.617	-.451	-1.125	.084	.867	-.592	-.396
23	-1.869	-.500	-.392	.147	-1.016	-.927	-.390
24	.190	-.945	-.394	.247	.466	-2.137	-.392
25	.391	.000	-1.345	-1.070	-1.504	-.990	-.390
26	.813	.174	-.396	.450	.624	-.394	-.392
				$\delta_e = 20°$			
1	.010	-.014	-.004	-.072	-.194	-.337	-.485
2	.014	.002	.059	-.030	-.257	-.473	-.912
3	.018	.020	.164	-.002	-.220	-.442	-.697
4	.030	.020	.248	-.016	-.333	-.394	-.877
5	-.095	-.046	.218	-.088	-.463	-.517	-1.190
6	-.160	-.276	-.521	-.262	-.921	-.620	-1.425
7	.014	-.133	-.455	-.722	-1.442	-.687	-2.067
8	-.055	-.137	-.444	-.314	-.192	-.818	-.022
9	-.028	-.196	-.545	-.304	-.182	-1.560	.031
10	-.006	-.020	-.545	-.296	-.127	-.133	.112
11	-.059	-.284	-.012	-.278	-.079	-.091	.254
12	-.253	-.286	-.255	-.254	-.026	-.063	.358
13	.240	.040	.012	-.244	.097	-.053	.511
14	.390	.018	.030	-.124	.101	.020	.767
15	.418	.161	.099	-.542	-1.410	.069	-.391
16	-.162	.113	-.051	-.562	-.903	.113	-.802
17	-.095	-.371	-.453	-.762	-1.471	.210	-1.744
18	-.230	-.310	-.129	-.896	-2.473	.370	.374
19	-.248	-.359	-.618	-.986	.178	-.796	.571
20	.141	-.421	-.646	.018	.354	-.941	-.389
21	-.596	-.438	-.380	.082	.572	-1.077	-.384
22	-1.743	-.266	-.836	.146	.891	-.838	-.384
23	-1.824	-.615	-.378	.208	-1.075	-1.176	-.389
24	.240	-1.012	-.382	.300	.473	-2.497	-.391
25	.446	.044	-.774	-1.158	-1.653	-1.234	-.391
26	.863	.192	-.382	.454	.655	-.388	-.389

TABLE 63 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	.033	-.060	-.078	-.186	-.275	-.425	-.564
2	.029	-.067	-.028	-.154	-.355	-.567	-.974
3	.029	-.079	.080	-.154	-.325	-.551	-.796
4	.010	-.095	.143	-.192	-.440	-.489	-.972
5	-.129	-.246	-.213	-.250	-.568	-.620	-1.305
6	-.461	-.583	-1.010	-.372	-1.076	-.720	-1.570
7	.037	-.117	-.207	-1.014	-1.406	-.785	-2.240
8	.010	-.125	-.225	-.149	-.098	-.917	.036
9	.012	-.153	-.231	-.119	-.074	-1.728	.089
10	.002	-.006	-.223	-.123	-.028	-.072	.178
11	-.120	-.262	.465	-.125	.012	-.034	.307
12	-.290	-.200	.183	-.119	.040	.002	.418
13	.176	-.016	-.113	-.139	.131	.010	.570
14	.312	-.089	-.145	-.053	.094	.082	.816
15	.257	-.028	-.123	-.646	-1.564	.125	-.354
16	-.518	-.109	-.229	-.651	-1.002	.153	-.853
17	-.029	-.756	-.441	-.855	-1.590	.260	-1.881
18	-.145	-.185	-.101	-.994	-2.741	.364	.400
19	-.245	-.236	-.266	-1.091	.227	-.988	.556
20	.302	-.256	-.278	.087	.406	-1.159	-.352
21	-.614	-.246	-.350	.141	.620	-1.290	-.352
22	-1.863	-.081	-.656	.208	.924	-1.034	-.349
23	-1.853	-.726	-.348	.271	-1.179	-1.398	-.350
24	.286	-1.141	-.350	.356	.484	-2.805	-.352
25	.500	.095	-.278	-1.212	-1.819	-1.433	-.352
26	.902	.210	-.350	.446	.691	-.364	-.352
				$\delta_e = 0°$			
1	.028	-.097	-.210	-.248	-.334	-.440	-.610
2	.014	-.134	-.240	-.216	-.433	-.641	-1.122
3	.028	-.164	-.250	-.196	-.400	-.593	-.874
4	-.016	-.221	-.277	-.250	-.521	-.536	-1.043
5	-.233	-.483	-.497	-.314	-.666	-.667	-1.390
6	-.763	-1.130	-1.517	-.460	-1.227	-.766	-1.669
7	.028	-.091	.585	-1.054	-1.473	-.835	-2.331
8	.024	-.083	.860	-.046	-.030	-.966	.083
9	.028	-.093	.876	-.038	-.004	-1.883	.142
10	.002	-.018	.890	-.050	.040	.002	.230
11	-.178	-.154	.796	-.042	.074	.044	.356
12	-.356	-.049	.625	-.030	.103	.075	.472
13	.101	-.105	-.250	-.020	.167	.079	.614
14	.087	-.187	-.297	.048	.091	.145	.841
15	-.215	-.233	-.377	-.726	-1.698	.190	-.352
16	-.838	-.381	-.581	-.722	-1.085	.224	-.913
17	.008	-1.414	-.798	-.934	-1.688	.302	-1.984
18	-.140	-.083	-.084	-1.082	-2.911	.363	.431
19	-.142	-.047	-.126	-1.178	.264	-1.196	.559
20	.389	-.045	-.271	.136	.445	-1.393	-.350
21	-.684	-.026	-.337	.190	.662	-1.514	-.348
22	-2.032	.156	-.567	.254	.946	-1.246	-.348
23	-1.923	-.819	-.341	.312	-1.254	-1.617	-.354
24	.308	-1.314	-.335	.402	.501	-3.012	-.350
25	.522	.164	-.399	-1.310	-1.950	-1.647	-.350
26	.919	.241	-.337	.444	.724	-.341	-.354
				$\delta_e = -10°$			
1	-.010	-.119	-.396	-.323	-.401	-.499	-.639
2	-.094	-.173	-.353	-.343	-.544	-.731	-1.323
3	-.060	-.187	-.452	-.325	-.509	-.685	-.962
4	-.080	-.249	-.462	-.400	-.644	-.613	-1.102
5	-.359	-.863	-1.032	-.530	-.796	-.745	-1.507
6	-1.144	-1.553	-2.012	-.725	-1.397	-.856	-1.836
7	.016	-.030	.631	-1.394	-1.660	-.926	-2.311
8	-.016	.006	.791	.120	.071	-1.054	.156
9	.012	.002	.895	.155	.108	-2.074	.210
10	.018	.014	.931	.159	.157	.082	.303
11	-.188	.000	.980	.169	.177	.128	.429
12	-.351	.103	.860	.177	.185	.158	.537
13	-.054	-.179	-.503	.167	.193	.152	.685
14	-.150	-.231	-.513	.153	.051	.226	.892
15	-.319	-.306	-.629	-.805	-1.831	.253	-.359
16	-1.222	-.565	-1.083	-.785	-1.177	.287	-.996
17	.305	-1.843	-1.487	-1.016	-1.807	.355	-2.162
18	.673	.028	-.105	-1.165	-3.094	.363	.469
19	.866	.137	.101	-1.265	.320	-1.449	.531
20	.485	.169	.103	.221	.499	-1.681	-.361
21	-.715	.209	-.359	.271	.707	-1.800	-.361
22	-2.176	.336	-.162	.335	.976	-1.515	-.359
23	-1.996	-.889	-.365	.386	-1.342	-1.882	-.363
24	.349	-1.433	-.361	.468	.515	-3.333	-.359
25	.565	.229	.049	-1.398	-2.126	-1.888	-.359
26	.940	.262	-.363	.442	.752	-.351	-.361

TABLE 63 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

ψ=30 °; δ_r=0 °; α= 0 °

Tube No.	Manometer Number 1	2	3	4	5	6	7
				δ_e=-20 °			
1	-.087	-.185	-.506	-.445	-.486	-.604	-.690
2	-.196	-.288	-.461	-.518	-.684	-.871	-1.487
3	-.194	-.302	-.646	-.469	-.608	-.830	-1.053
4	-.192	-.355	-.720	-.568	-.773	-.735	-1.165
5	-.442	-1.294	-1.325	-.732	-.941	-.875	-1.605
6	-1.554	-2.008	-2.341	-1.029	-1.627	-.988	-1.969
7	.006	.056	.530	-2.158	-1.965	-1.064	-2.395
8	-.026	.123	.622	.283	.192	-1.214	.224
9	-.010	.141	.703	.326	.233	-2.466	.285
10	.014	.024	.778	.340	.282	.166	.377
11	-.147	.196	.959	.348	.292	.205	.499
12	-.269	.270	.929	.350	.282	.246	.603
13	-.188	-.296	-.701	.336	.231	.232	.735
14	-.295	-.310	-.793	.248	-.004	.316	.929
15	-.487	-.415	-.945	-.926	-2.065	.339	-.399
16	-1.679	-.847	-1.486	-.861	-1.298	.363	-1.055
17	.507	-2.226	-2.035	-1.119	-1.935	.419	-2.318
18	.822	.163	-.053	-1.305	-3.131	.335	.507
19	.871	.337	.343	-1.422	.390	-1.864	.511
20	.590	.387	.372	.299	.571	-2.129	-.397
21	-.731	.448	-.388	.350	.773	-2.234	-.399
22	-2.295	.490	.209	.410	1.000	-1.889	-.397
23	-2.075	-1.010	-.392	.465	-1.488	-2.253	-.393
24	.406	-1.669	-.388	.533	.555	-3.786	-.397
25	.616	.321	.335	-1.605	-2.408	-2.337	-.399
26	.970	.286	-.390	.428	.798	-.402	-.401
				δ_e=-30 °			
1	-.174	-.318	-.666	-.574	-.552	-.662	-.765
2	-.322	-.484	-.626	-.602	-.763	-.984	-1.525
3	-.414	-.575	-.830	-.600	-.684	-.920	-1.159
4	-.548	-.700	-1.148	-.664	-.809	-.801	-1.266
5	-.472	-1.164	-1.296	-.770	-.990	-.928	-1.686
6	-1.242	-1.245	-1.518	-1.012	-1.748	-1.035	-2.036
7	.010	.162	.577	-1.748	-2.331	-1.098	-2.443
8	-.038	.233	.717	.416	.288	-1.234	.280
9	-.064	.253	.796	.456	.335	-2.574	.328
10	-.090	-.085	.824	.456	.375	.248	.423
11	-.174	.348	.883	.460	.381	.287	.537
12	-.146	.411	.899	.464	.367	.328	.634
13	-.322	-.498	-1.121	.454	.290	.307	.765
14	-.466	-.530	-1.235	.340	.069	.385	.942
15	-.978	-.642	-1.462	-1.020	-2.162	.418	-.421
16	-1.292	-1.075	-1.856	-.936	-1.359	.432	-1.076
17	.442	-1.338	-1.638	-1.188	-2.014	.475	-2.416
18	.816	.275	-.053	-1.350	-3.166	.338	.525
19	.872	.498	.435	-1.454	.446	-2.121	.509
20	.644	.559	.480	.358	.617	-2.443	-.423
21	-.766	.617	-.413	.414	.813	-2.557	-.416
22	-2.436	.623	.415	.472	1.012	-2.201	-.419
23	-2.154	-1.089	-.415	.514	-1.552	-2.566	-.419
24	.430	-1.747	-.415	.576	.578	-4.102	-.421
25	.638	.381	.437	-1.602	-2.456	-2.531	-.419
26	.978	.318	-.419	.440	.828	-.422	-.419
				δ_e=-40 °			
1	-.369	-.611	-.542	-.329	-.467	-.561	-.647
2	-.493	-.623	-.558	-.356	-.563	-.810	-1.225
3	-.536	-.671	-.699	-.173	-.423	-.706	-.923
4	-.566	-.692	-.688	-.177	-.610	-.595	-1.016
5	-.330	-.665	-.629	-.341	-.876	-.672	-1.430
6	-.613	-.643	-.637	-.679	-.935	-.777	-1.755
7	-.090	.247	.605	-.854	-.931	-.824	-2.122
8	-.088	.361	.699	.516	.360	-.893	.314
9	-.086	.402	.747	.577	.402	-1.658	.365
10	-.049	-.030	.772	.600	.453	.300	.452
11	.065	.552	.807	.620	.457	.338	.558
12	.120	.596	.839	.618	.435	.379	.659
13	-.430	-.503	-.633	.598	.382	.352	.771
14	-.546	-.521	-.550	.451	.238	.431	.933
15	-.599	-.588	-.686	-.787	-1.880	.457	-.414
16	-.611	-.639	-.650	-.687	-1.167	.472	-.966
17	.420	-.641	-.640	-.892	-1.764	.506	-2.174
18	.819	.391	-.059	-1.085	-2.862	.443	.542
19	.890	.643	.446	-1.177	.463	-1.808	.538
20	.739	.712	.525	.415	.640	-2.097	-.400
21	-.692	.789	-.399	.472	.817	-2.223	-.402
22	-2.181	.755	.466	.520	1.014	-1.899	-.400
23	-1.908	-.886	-.397	.561	-1.496	-2.215	-.402
24	.462	-.992	-.395	.620	.585	-3.595	-.396
25	.660	.450	.499	-1.571	-2.159	-1.984	-.398
26	.984	.412	-.401	.461	.839	-.405	-.402

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13	.185	.022	.206	-.300	-.093	-.213	.080
14	.420	.175	.195	-.249	.036	-.185	.304
15	.436	.187	.171	-.409	-.586	-.150	-.395
16	.079	.144	.064	-.455	-.825	-.126	-.366
17	-.063	.053	-.193	-.518	-.984	-.047	-.848
18	-.204	-.232	-.089	-.617	-1.161	.276	.142
19	-.228	-.291	-.681	-.630	-.119	.652	.519
20	-.187	-.372	-.634	-.189	-.032	.618	-.391
21	-.389	-.394	-.377	-.167	.103	.559	-.389

TABLE 64

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.046	.145	.360	.307	.184	-.016	-.191
2	.023	.255	.419	.328	.135	-.047	-.253
3	.058	.286	.469	.344	.109	-.085	-.350
4	.069	.302	.512	.348	.045	-.124	-.466
5	-.095	.292	.481	.328	-.018	-.163	-.530
6	-.145	.365	.804	.278	-.240	-.192	-.587
7	-.131	-.263	-.841	.132	-.273	-.273	-.635
8	-.220	-.469	-.831	-.602	-.385	-.333	-.312
9	-.147	-.420	-.959	-.584	-.418	-.401	-.326
10	-.120	-.141	-1.091	-.633	-.410	-.359	-.314
11	-.407	-.637	-1.066	-.571	-.373	-.357	-.248
12	-1.208	-1.631	-1.508	-.534	-.352	-.359	-.191
13	.347	.300	.384	-.520	-.252	-.357	-.110
14	.544	.492	.459	-.433	-.098	-.337	.102
15	.600	.524	.391	-.221	-.404	-.302	-.428
16	.446	.543	.320	-.264	-.611	-.273	-.224
17	-.305	.604	.215	-.346	-.705	-.186	-.505
18	-.521	-.506	-.035	-.421	-.814	.145	.051
19	-.595	-.580	-1.126	-.447	-.223	.847	.413
20	-1.502	-.645	-1.762	-.317	-.168	.828	-.424
21	-.230	-.753	-.407	-.301	-.045	.798	-.420
22	-.492	-1.139	-1.940	-.276	.232	.874	-.422
23	-.948	-.227	-.407	-.241	-.223	.769	-.422
24	-.060	-.367	-.413	-.155	.180	.467	-.428
25	-.010	-.318	-2.074	-.235	-.520	.388	-.426
26	.241	-.127	-.411	.377	.139	-.419	-.424
				$\delta_e = 30°$			
1	-.040	.057	.251	.211	.046	-.118	-.303
2	.029	.148	.310	.237	.012	-.149	-.368
3	.052	.166	.358	.247	-.024	-.187	-.477
4	.054	.170	.391	.231	-.080	-.224	-.612
5	-.075	.125	.489	.211	-.148	-.253	-.691
6	-.163	.164	.772	.144	-.387	-.285	-.762
7	-.077	-.158	-.662	-.065	-.439	-.363	-.846
8	-.081	-.226	-.731	-.455	-.345	-.417	-.253
9	-.052	-.238	-.813	-.480	-.369	-.505	-.257
10	-.036	-.053	-.745	-.484	-.355	-.320	-.238
11	-.167	-.394	-.658	-.492	-.325	-.312	-.164
12	-.869	-.717	-.941	-.480	-.303	-.310	-.099
13	.347	.146	.326	-.482	-.198	-.314	.000
14	.484	.343	.365	-.387	-.048	-.287	.224
15	.514	.363	.330	-.308	-.519	-.255	-.408
16	.296	.357	.251	-.350	-.758	-.230	-.303
17	-.188	.357	.094	-.439	-.868	-.139	-.715
18	-.332	-.322	-.081	-.506	-1.008	.181	.105
19	-.409	-.411	-1.222	-.532	-.194	.782	.479
20	-.916	-.497	-1.081	-.271	-.124	.762	-.404
21	-.290	-.538	-.413	-.257	.004	.735	-.406
22	-.576	-.604	-1.332	-.229	.299	.817	-.408
23	-1.100	-.329	-.409	-.190	-.309	.717	-.408
24	-.013	-.476	-.413	-.113	.196	.387	-.406
25	.042	-.236	-1.269	-.273	-.659	.299	-.404
26	.321	-.051	-.411	.381	.186	-.405	-.404
				$\delta_e = 20°$			
1	-.006	-.016	.171	.093	-.074	-.220	-.383
2	.031	.041	.191	.099	-.091	-.240	-.455
3	.037	.053	.247	.097	-.135	-.283	-.566
4	.033	.047	.296	.072	-.179	-.333	-.702
5	-.041	-.033	.527	.045	-.262	-.372	-.805
6	-.161	-.077	.605	-.031	-.511	-.398	-.879
7	.020	-.087	-.411	-.243	-.579	-.467	-.971
8	-.026	-.120	-.508	-.307	-.239	-.528	-.195
9	-.004	-.156	-.508	-.300	-.256	-.679	-.198
10	.000	-.018	-.508	-.315	-.239	-.230	-.167
11	-.045	-.254	-.121	-.307	-.215	-.219	-.091
12	-.253	-.411	-.350	-.294	-.195	-.205	-.025
13	.185	.022	.206	-.300	-.093	-.213	.080
14	.420	.175	.195	-.249	.036	-.185	.304
15	.436	.187	.171	-.409	-.586	-.150	-.395
16	.079	.144	.064	-.455	-.825	-.126	-.366
17	-.063	.053	-.193	-.518	-.984	-.047	-.848
18	-.204	-.232	-.089	-.617	-1.161	.276	.142
19	-.228	-.291	-.681	-.630	-.119	.652	.519
20	-.187	-.372	-.634	-.189	-.032	.618	-.391
21	-.389	-.394	-.377	-.167	.103	.559	-.389
22	-.699	-.378	-1.241	-.140	.404	.661	-.387
23	-1.334	-.453	-.375	-.107	-.338	.476	-.389
24	.018	-.640	-.374	-.027	.229	-.114	-.393
25	.100	-.163	-.757	-.327	-.763	.191	-.389
26	.415	.018	-.374	.397	.268	-.382	-.393

TABLE 64 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	.045	-.039	.042	-.053	-.198	-.321	-.480
2	.047	-.020	.069	-.075	-.210	-.352	-.564
3	.051	-.022	.158	-.087	-.265	-.394	-.687
4	.049	-.033	.246	-.117	-.305	-.442	-.793
5	-.022	-.143	.343	-.154	-.376	-.479	-.952
6	-.183	-.288	.141	-.231	-.651	-.511	-1.026
7	.075	-.075	-.222	-.425	-.743	-.566	-1.145
8	.022	-.078	-.261	-.154	-.162	-.636	-.149
9	.037	-.106	-.244	-.144	-.174	-.848	-.143
10	.030	.014	-.263	-.166	-.158	-.160	-.108
11	-.004	-.192	.311	-.164	-.147	-.145	-.028
12	-.207	-.241	.085	-.156	-.131	-.133	.038
13	.010	-.031	.030	-.172	-.040	-.139	.151
14	.360	.033	-.016	-.154	.085	-.105	.380
15	.360	.033	-.061	-.516	-.689	-.081	-.365
16	-.132	-.033	-.206	-.583	-.905	-.057	-.436
17	.014	-.216	-.345	-.640	-1.121	.022	-1.032
18	-.106	-.151	-.073	-.729	-1.335	.323	.175
19	-.150	-.202	-.327	-.761	-.071	.507	.544
20	.138	-.227	-.333	-.115	.020	.467	-.369
21	-.455	-.235	-.368	-.097	.166	.386	-.363
22	-.793	-.178	-.398	-.061	.473	.517	-.363
23	-1.524	-.543	-.364	-.024	-.396	.313	-.363
24	.071	-.716	-.360	.045	.251	-.442	-.367
25	.161	-.104	-.352	-.421	-.891	.040	-.369
26	.496	.071	-.368	.421	.319	-.352	-.367
				$\delta_e = 0°$			
1	.085	-.051	-.119	-.131	-.261	-.388	-.539
2	.071	-.081	-.146	-.143	-.275	-.429	-.645
3	.059	-.103	-.158	-.155	-.329	-.469	-.752
4	.038	-.125	-.188	-.179	-.372	-.518	-.850
5	-.051	-.244	-.233	-.192	-.435	-.557	-1.050
6	-.420	-.507	-.375	-.274	-.758	-.593	-1.138
7	.069	-.051	.168	-.508	-.881	-.634	-1.277
8	.048	-.053	.468	-.058	-.082	-.709	-.086
9	.044	-.069	.743	-.067	-.092	-.947	-.078
10	.028	.018	.775	-.091	-.074	-.114	-.044
11	-.032	-.137	.644	-.095	-.064	-.098	.038
12	-.216	-.085	.528	-.095	-.060	-.087	.116
13	.063	-.099	-.126	-.107	.029	-.098	.220
14	.119	-.129	-.178	-.067	.135	-.059	.449
15	.012	-.168	-.237	-.567	-.743	-.037	-.353
16	-.370	-.236	-.360	-.633	-.957	-.020	-.473
17	.002	-.541	-.478	-.688	-1.211	.061	-1.148
18	-.089	-.069	-.049	-.768	-1.458	.343	.212
19	-.174	-.044	-.111	-.806	-.010	.419	.571
20	.291	-.057	-.198	-.063	.082	.376	-.355
21	-.493	-.057	-.350	-.038	.236	.295	-.355
22	-.863	.077	-.538	-.014	.540	.441	-.357
23	-1.636	-.600	-.352	.016	-.421	.222	-.359
24	.091	-.850	-.344	.091	.281	-.622	-.359
25	.194	-.030	-.368	-.427	-.981	-.045	-.357
26	.533	.131	-.352	.427	.380	-.362	-.353
				$\delta_e = -10°$			
1	.054	-.067	-.325	-.230	-.331	-.460	-.587
2	.025	-.120	-.337	-.293	-.361	-.538	-.706
3	.004	-.146	-.394	-.299	-.435	-.552	-.812
4	-.039	-.179	-.380	-.343	-.466	-.608	-.913
5	-.140	-.413	-.515	-.380	-.538	-.654	-1.107
6	-.847	-1.228	-1.010	-.459	-.873	-.692	-1.224
7	.045	-.010	.465	-.701	-1.020	-.704	-1.379
8	.039	.002	.556	.075	-.002	-.806	-.028
9	.027	-.010	.735	.083	.000	-1.098	-.020
10	.016	.006	.745	.075	.018	-.036	.020
11	-.087	-.041	.859	.077	.020	-.016	.099
12	-.276	.061	.855	.081	.018	.002	.179
13	.008	-.136	-.398	.063	.085	-.014	.284
14	-.066	-.207	-.525	.067	.163	.026	.512
15	-.190	-.293	-.554	-.651	-.839	.046	-.351
16	-1.035	-.392	-.739	-.729	-1.034	.058	-.504
17	.037	-.976	-.931	-.792	-1.325	.120	-1.187
18	.169	.022	-.051	-.838	-1.587	.390	.240
19	.713	.108	.105	-.913	.036	.252	.577
20	.416	.120	.083	.010	.139	.198	-.353
21	-.548	.132	-.350	.030	.288	.088	-.349
22	-.975	.287	-.226	.065	.595	.248	-.349
23	-1.808	-.671	-.349	.091	-.472	-.004	-.353
24	.146	-.915	-.345	.158	.304	-1.042	-.351
25	.256	.022	.008	-.489	-1.067	-.214	-.351
26	.614	.161	-.352	.438	.417	-.352	-.355

TABLE 64 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	-.022	-.108	-.493	-.341	-.423	-.525	-.646
2	-.046	-.167	-.563	-.466	-.460	-.614	-.802
3	-.057	-.224	-.700	-.444	-.553	-.620	-.879
4	-.105	-.285	-.748	-.483	-.601	-.685	-.994
5	-.305	-.717	-.763	-.548	-.676	-.735	-1.156
6	-1.257	-1.833	-1.815	-.706	-1.117	-.768	-1.325
7	.024	.035	.457	-.978	-1.366	-.782	-1.485
8	.036	.091	.507	.235	.121	-.885	.040
9	.036	.098	.626	.264	.130	-1.240	.051
10	.034	.031	.660	.254	.156	.053	.091
11	-.113	.120	.887	.249	.152	.073	.172
12	-.269	.238	1.002	.254	.142	.089	.240
13	-.087	-.205	-.672	.252	.180	.069	.345
14	-.168	-.299	-.819	.215	.209	.117	.560
15	-.345	-.429	-.926	-.730	-1.063	.133	-.380
16	-1.414	-.622	-1.203	-.814	-1.174	.143	-.550
17	.436	-2.100	-1.626	-.892	-1.536	.202	-1.250
18	.745	.126	-.046	-.941	-1.915	.418	.273
19	.782	.276	.306	-.994	.136	.097	.594
20	.535	.317	.328	.104	.257	.048	-.374
21	-.600	.356	-.382	.129	.421	-.075	-.378
22	-1.055	.504	.117	.160	.727	.101	-.380
23	-1.966	-.768	-.384	.188	-.549	-.178	-.374
24	.172	-1.085	-.384	.245	.360	-1.315	-.372
25	.289	.112	.282	-.571	-1.292	-.376	-.372
26	.644	.224	-.386	.456	.530	-.382	-.376
				$\delta_e = -30°$			
1	-.110	-.200	-.579	-.424	-.469	-.577	-.690
2	-.163	-.319	-.647	-.540	-.511	-.690	-.885
3	-.151	-.366	-.844	-.564	-.629	-.683	-.937
4	-.189	-.410	-.988	-.604	-.691	-.760	-1.069
5	-.371	-1.030	-1.277	-.697	-.780	-.810	-1.198
6	-1.823	-2.507	-2.657	-.956	-1.242	-.853	-1.423
7	.006	.125	.552	-1.209	-1.603	-.855	-1.591
8	.036	.208	.618	.367	.224	-.962	.105
9	.040	.236	.698	.404	.234	-1.393	.115
10	.054	.055	.725	.416	.255	.139	.157
11	-.044	.299	.817	.426	.246	.163	.234
12	-.169	.396	.971	.432	.228	.183	.302
13	-.112	-.267	-.871	.378	.238	.153	.401
14	-.315	-.471	-1.277	.297	.218	.208	.615
15	-.460	-.552	-1.409	-.775	-1.144	.210	-.397
16	-1.958	-.848	-1.899	-.873	-1.226	.220	-.583
17	.478	-2.552	-1.517	-.954	-1.541	.268	-1.321
18	.755	.255	.010	-1.002	-2.014	.444	.312
19	.819	.442	.433	-1.040	.194	-.097	.607
20	.661	.493	.435	.167	.311	-.163	-.395
21	-.645	.558	-.392	.185	.471	-.302	-.393
22	-1.259	.648	.324	.225	.766	-.111	-.395
23	-2.223	-.851	-.388	.235	-.565	-.427	-.399
24	.241	-1.261	-.388	.291	.385	-1.772	-.395
25	.371	.200	.368	-.592	-1.383	-.573	-.393
26	.733	.277	-.392	.454	.569	-.401	-.393
				$\delta_e = -40°$			
1	-.291	-.567	-.515	-.268	-.396	-.486	-.658
2	-.456	-.594	-.602	-.168	-.368	-.561	-.845
3	-.554	-.665	-.774	-.084	-.384	-.547	-.875
4	-.610	-.705	-.723	-.034	-.382	-.589	-1.006
5	-.323	-.695	-.679	-.016	-.451	-.616	-1.103
6	-.679	-.691	-.685	-.110	-.863	-.638	-1.350
7	-.070	.185	.578	-.588	-1.150	-.632	-1.523
8	-.104	.276	.612	.454	.305	-.726	.145
9	-.127	.307	.653	.496	.301	-1.073	.153
10	-.112	-.096	.650	.508	.329	.187	.207
11	-.008	.441	.729	.522	.325	.209	.278
12	.048	.563	.901	.538	.309	.219	.354
13	-.333	-.476	-.871	.534	.323	.179	.451
14	-.568	-.484	-1.190	.462	.331	.232	.658
15	-.647	-.656	-.766	-.692	-1.000	.240	-.410
16	-.681	-.681	-.687	-.770	-1.121	.246	-.563
17	.406	-.689	-.691	-.828	-1.442	.281	-1.316
18	.751	.335	-.024	-.868	-1.834	.467	.334
19	.809	.569	.426	-.898	.226	.106	.622
20	.721	.618	.481	.218	.335	.053	-.410
21	-.606	.685	-.394	.244	.485	-.073	-.412
22	-1.259	.774	.473	.272	.768	.073	-.408
23	-2.199	-.612	-.400	.290	-.515	-.236	-.416
24	.275	-.990	-.392	.346	.396	-1.358	-.412
25	.408	.256	.444	-.586	-1.184	-.313	-.408
26	.769	.335	-.394	.474	.584	-.394	-.410

TABLE 65

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.004	.213	.510	.428	.263	.137	.033
2	.079	.333	.543	.434	.251	.112	.002
3	.112	.370	.590	.449	.244	.084	-.012
4	.114	.382	.621	.449	.177	.078	-.014
5	-.079	.417	.623	.445	.153	.065	.006
6	-.087	.533	.914	.438	.118	.051	.047
7	-.085	-.203	-.707	.346	.181	.039	.175
8	-.147	-.376	-.730	-.547	-.403	.029	-.468
9	-.108	-.370	-.928	-.539	-.464	.221	-.546
10	-.128	-.150	-1.246	-.594	-.517	-.429	-.645
11	-1.004	-1.018	-1.326	-.549	-.546	-.454	-.663
12	-1.609	-2.197	-2.098	-.559	-.591	-.507	-.698
13	.410	.350	.475	-.635	-.729	-.538	-.721
14	.602	.541	.488	-.785	-.699	-.550	-.690
15	.667	.589	.473	.055	-.047	-.552	-.423
16	.576	.636	.389	.043	-.039	-.568	.127
17	-.176	.768	.297	.037	.031	-.550	.366
18	-.484	-.362	.002	.027	.206	-.429	-.244
19	-.600	-.484	-1.047	.049	-.576	.926	-.363
20	-1.727	-.594	-1.852	-.559	-.715	.928	-.415
21	.074	-.797	-.420	-.609	-.766	.908	-.417
22	.031	-2.100	-2.662	-.631	-.764	.836	-.419
23	.180	.089	-.420	-.639	.165	.840	-.421
24	-.304	.120	-.426	-.607	-.169	.605	-.417
25	-.538	-.600	-2.131	.326	.189	.546	-.419
26	-.789	-.642	-.426	.020	-.527	-.434	-.421
				$\delta_e = 30°$			
1	.014	.118	.386	.318	.156	.047	-.067
2	.068	.204	.424	.327	.144	.021	-.104
3	.084	.226	.473	.337	.134	-.002	-.134
4	.068	.236	.527	.324	.079	-.016	-.136
5	-.068	.232	.643	.316	.047	-.031	-.132
6	-.168	.356	.959	.294	.004	-.037	-.093
7	-.031	-.122	-.554	.193	.085	-.047	.024
8	-.045	-.198	-.674	-.405	-.325	-.045	-.419
9	-.041	-.236	-.773	-.466	-.392	.145	-.492
10	-.080	-.100	-.777	-.481	-.433	-.379	-.571
11	-.596	-.642	-.783	-.505	-.457	-.402	-.583
12	-1.207	-1.743	-1.372	-.530	-.492	-.453	-.594
13	.406	.222	.415	-.604	-.594	-.475	-.602
14	.516	.385	.461	-.680	-.518	-.490	-.530
15	.561	.420	.415	-.072	-.138	-.496	-.419
16	.412	.440	.331	-.092	-.154	-.502	.061
17	-.119	.580	.198	-.103	-.098	-.490	.264
18	-.352	-.204	-.025	-.113	.051	-.338	-.199
19	-.545	-.379	-1.101	-.092	-.490	.967	-.238
20	-1.369	-.479	-1.054	-.472	-.589	.975	-.423
21	.014	-.627	-.417	-.501	-.618	.955	-.419
22	-.045	-1.786	-1.667	-.517	-.567	.904	-.417
23	.072	-.002	-.415	-.519	.108	.908	-.415
24	-.291	.031	-.417	-.480	-.110	.738	-.417
25	-.510	-.556	-1.372	.261	.071	.582	-.423
26	-.719	-.580	-.417	.121	-.392	-.418	-.419
				$\delta_e = 20°$			
1	.034	.053	.278	.200	.058	-.050	-.136
2	.050	.104	.303	.200	.050	-.083	-.178
3	.050	.112	.384	.196	.026	-.109	-.212
4	.036	.110	.474	.182	-.012	-.121	-.220
5	-.038	.075	.691	.175	-.038	-.137	-.222
6	-.180	.153	.853	.116	-.078	-.143	-.180
7	.046	-.018	-.389	.047	.018	-.149	-.064
8	-.018	-.083	-.427	-.290	-.255	-.145	-.359
9	-.026	-.136	-.526	-.324	-.311	.040	-.423
10	-.040	-.049	-.587	-.327	-.349	-.321	-.497
11	-.240	-.361	-.335	-.327	-.371	-.343	-.493
12	-.830	-.692	-.841	-.333	-.406	-.391	-.511
13	.204	.124	.303	-.386	-.506	-.413	-.505
14	.426	.232	.282	-.518	-.430	-.423	-.423
15	.453	.246	.245	-.153	-.205	-.423	-.407
16	.232	.244	.153	-.167	-.223	-.431	.016
17	-.002	.334	-.078	-.180	-.173	-.415	.188
18	-.222	-.114	-.027	-.184	-.026	-.240	-.152
19	-.323	-.234	-.624	-.157	-.442	1.000	-.128
20	-1.107	-.322	-.626	-.400	-.530	.998	-.403
21	-.065	-.387	-.397	-.435	-.538	.994	-.403
22	-.145	-.609	-1.104	-.447	-.466	.962	-.403
23	-.081	-.136	-.401	-.451	.062	.968	-.405
24	-.255	-.124	-.395	-.412	-.082	.875	-.403
25	-.446	-.415	-.795	.239	.024	.611	-.401
26	-.580	-.375	-.399	.135	-.329	-.415	-.403

TABLE 65

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.004	.213	.510	.428	.263	.137	.033
2	.079	.333	.543	.434	.251	.112	.002
3	.112	.370	.590	.449	.244	.084	-.012
4	.114	.382	.621	.449	.177	.078	-.014
5	-.079	.417	.623	.445	.153	.065	.006
6	-.087	.533	.914	.438	.118	.051	.047
7	-.085	-.203	-.707	.346	.181	.039	.175
8	-.147	-.376	-.730	-.547	-.403	.029	-.468
9	-.108	-.370	-.928	-.539	-.464	.221	-.546
10	-.128	-.150	-1.246	-.594	-.517	-.429	-.645
11	-1.004	-1.018	-1.326	-.549	-.546	-.454	-.663
12	-1.609	-2.197	-2.098	-.559	-.591	-.507	-.698
13	.410	.350	.475	-.635	-.729	-.538	-.721
14	.602	.541	.488	-.785	-.699	-.550	-.690
15	.667	.589	.473	.055	-.047	-.552	-.423
16	.576	.636	.389	.043	-.039	-.568	.127
17	-.176	.768	.297	.037	.031	-.550	.366
18	-.484	-.362	.002	.027	.206	-.429	-.244
19	-.600	-.484	-1.047	.049	-.576	.926	-.363
20	-1.727	-.594	-1.852	-.559	-.715	.928	-.415
21	.074	-.797	-.420	-.609	-.766	.908	-.417
22	.031	-2.100	-2.662	-.631	-.764	.836	-.419
23	.180	.089	-.420	-.639	.165	.840	-.421
24	-.304	.120	-.426	-.607	-.169	.605	-.417
25	-.538	-.600	-2.131	.326	.189	.546	-.419
26	-.789	-.642	-.426	.020	-.527	-.434	-.421
				$\delta_e = 30°$			
1	.014	.118	.386	.318	.156	.047	-.067
2	.068	.204	.424	.327	.144	.021	-.104
3	.084	.226	.473	.337	.134	-.002	-.134
4	.068	.236	.527	.324	.079	-.016	-.136
5	-.068	.232	.643	.316	.047	-.031	-.132
6	-.168	.356	.959	.294	.004	-.037	-.093
7	-.031	-.122	-.554	.193	.085	-.047	.024
8	-.045	-.198	-.674	-.405	-.325	-.045	-.419
9	-.041	-.236	-.773	-.466	-.392	.145	-.492
10	-.080	-.100	-.777	-.481	-.433	-.379	-.571
11	-.596	-.642	-.783	-.505	-.457	-.402	-.583
12	-1.207	-1.743	-1.372	-.530	-.492	-.453	-.594
13	.406	.222	.415	-.604	-.594	-.475	-.602
14	.516	.385	.461	-.680	-.518	-.490	-.530
15	.561	.420	.415	-.072	-.138	-.496	-.419
16	.412	.440	.331	-.092	-.154	-.502	.061
17	-.119	.580	.198	-.103	-.098	-.490	.264
18	-.352	-.204	-.025	-.113	.051	-.338	-.199
19	-.545	-.379	-1.101	-.092	-.490	.967	-.238
20	-1.369	-.479	-1.054	-.472	-.589	.975	-.423
21	.014	-.627	-.417	-.501	-.618	.955	-.419
22	-.045	-1.786	-1.667	-.517	-.567	.904	-.417
23	.072	-.002	-.415	-.519	.108	.908	-.415
24	-.291	.031	-.417	-.480	-.110	.738	-.417
25	-.510	-.556	-1.372	.261	.071	.582	-.423
26	-.719	-.580	-.417	.121	-.392	-.418	-.419
				$\delta_e = 20°$			
1	.034	.053	.278	.200	.058	-.050	-.136
2	.050	.104	.303	.200	.050	-.083	-.178
3	.050	.112	.384	.196	.026	-.109	-.212
4	.036	.110	.474	.182	-.012	-.121	-.220
5	-.038	.075	.691	.175	-.038	-.137	-.222
6	-.180	.153	.853	.116	-.078	-.143	-.180
7	.046	-.018	-.389	.047	.018	-.149	-.064
8	-.018	-.083	-.427	-.290	-.255	-.145	-.359
9	-.026	-.136	-.526	-.324	-.311	.040	-.423
10	-.040	-.049	-.587	-.327	-.349	-.321	-.497
11	-.240	-.361	-.335	-.327	-.371	-.343	-.493
12	-.830	-.692	-.841	-.333	-.406	-.391	-.511
13	.204	.124	.303	-.386	-.506	-.413	-.505
14	.426	.232	.282	-.518	-.430	-.423	-.423
15	.453	.246	.245	-.153	-.205	-.423	-.407
16	.232	.244	.153	-.167	-.223	-.431	.016
17	-.002	.334	-.078	-.180	-.173	-.415	.188
18	-.222	-.114	-.027	-.184	-.026	-.240	-.152
19	-.323	-.234	-.624	-.157	-.442	1.000	-.128
20	-1.107	-.322	-.626	-.400	-.530	.998	-.403
21	-.065	-.387	-.397	-.435	-.538	.994	-.403
22	-.145	-.609	-1.104	-.447	-.466	.962	-.403
23	-.081	-.136	-.401	-.451	.062	.968	-.405
24	-.255	-.124	-.395	-.412	-.082	.875	-.403
25	-.446	-.415	-.795	.239	.024	.611	-.401
26	-.580	-.375	-.399	.135	-.329	-.415	-.403

TABLE 65 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	.052	.024	.160	.050	-.068	-.117	-.224
2	.054	.030	.232	.032	-.080	-.142	-.276
3	.050	.022	.416	.030	-.113	-.175	-.321
4	.030	.000	.586	.016	-.151	-.189	-.337
5	-.006	-.052	.610	-.032	-.181	-.202	-.341
6	-.183	-.038	.572	-.071	-.239	-.208	-.310
7	.091	-.008	-.188	-.117	-.163	-.204	-.208
8	.034	-.042	-.218	-.123	-.165	-.200	-.304
9	.028	-.076	-.220	-.135	-.211	-.035	-.363
10	.016	.008	-.284	-.164	-.241	-.230	-.427
11	-.072	-.213	-.066	-.174	-.258	-.243	-.413
12	-.338	-.430	-.154	-.174	-.298	-.294	-.417
13	.006	.052	.140	-.234	-.342	-.319	-.401
14	.427	.094	.074	-.376	-.237	-.327	-.302
15	.423	.084	.012	-.238	-.328	-.325	-.401
16	.103	.052	-.146	-.265	-.366	-.335	-.058
17	.091	.090	-.390	-.273	-.342	-.325	.065
18	-.123	-.074	-.012	-.277	-.239	-.132	-.111
19	-.179	-.153	-.308	-.251	-.360	.992	-.014
20	-.314	-.201	-.324	-.317	-.419	.992	-.399
21	-.093	-.235	-.388	-.349	-.402	.996	-.397
22	-.193	-.369	-.578	-.356	-.268	.979	-.395
23	-.139	-.207	-.388	-.354	.016	.979	-.397
24	-.211	-.181	-.390	-.323	-.024	.932	-.399
25	-.400	-.369	-.432	.198	-.155	.617	-.401
26	-.513	-.331	-.392	.178	-.177	-.379	-.397
				$\delta_e = 0°$			
1	.115	-.008	-.054	-.059	-.126	-.191	-.254
2	.093	-.032	-.072	-.073	-.138	-.217	-.308
3	.083	-.058	-.076	-.073	-.175	-.250	-.348
4	.065	-.062	-.072	-.095	-.205	-.264	-.362
5	.018	-.171	.301	-.115	-.224	-.283	-.364
6	-.154	-.255	.164	-.158	-.287	-.281	-.340
7	.123	-.008	-.008	-.251	-.197	-.278	-.245
8	.085	-.014	.004	-.038	-.089	-.274	-.252
9	.081	-.032	.140	-.057	-.134	-.110	-.306
10	.071	.046	.170	-.081	-.175	-.179	-.368
11	.018	-.135	.457	-.111	-.203	-.193	-.350
12	-.180	-.233	.244	-.128	-.242	-.236	-.352
13	.069	-.036	-.022	-.182	-.289	-.262	-.340
14	.239	-.062	-.072	-.277	-.187	-.266	-.235
15	.320	-.082	-.096	-.308	-.337	-.268	-.366
16	-.087	-.122	-.172	-.338	-.392	-.281	-.060
17	.079	-.185	-.289	-.352	-.358	-.262	.066
18	-.028	-.038	-.006	-.358	-.260	-.059	-.082
19	-.075	-.030	-.062	-.328	-.321	1.004	.014
20	.075	-.048	-.098	-.263	-.370	1.000	-.362
21	-.152	-.088	-.383	-.283	-.356	1.004	-.360
22	-.279	-.133	-.429	-.296	-.228	1.006	-.366
23	-.287	-.271	-.387	-.298	.008	1.006	-.364
24	-.152	-.275	-.385	-.263	-.014	.967	-.360
25	-.294	-.293	-.248	.172	-.167	.626	-.362
26	-.328	-.243	-.387	.200	-.148	-.370	-.360
				$\delta_e = -10°$			
1	.114	-.026	-.248	-.146	-.206	-.244	.059
2	.094	-.068	-.268	-.176	-.220	-.281	.029
3	.082	-.086	-.282	-.178	-.256	-.319	.028
4	.058	-.094	-.334	-.206	-.276	-.341	-.006
5	-.004	-.200	-.140	-.206	-.300	-.351	-.071
6	-.255	-.428	-.272	-.273	-.373	-.357	-.774
7	.098	.006	.280	-.361	-.286	-.347	.069
8	.084	.014	.292	.058	-.028	-.349	.063
9	.074	.006	.442	.050	-.063	-.204	.061
10	.058	.038	.478	.034	-.101	-.108	.057
11	.026	-.076	.652	.030	-.133	-.124	-.008
12	-.160	-.054	.610	.002	-.179	-.158	-.173
13	.092	-.090	-.288	-.068	-.226	-.196	.018
14	.064	-.170	-.414	-.148	-.119	-.190	-.049
15	-.034	-.214	-.402	-.377	-.393	-.194	-.147
16	-.311	-.248	-.522	-.403	-.458	-.208	-1.008
17	.042	-.386	-.740	-.413	-.440	-.192	.244
18	-.014	.024	-.010	-.419	-.347	.034	.513
19	.323	.090	.078	-.387	-.286	1.016	.633
20	.253	.084	.062	-.204	-.333	1.012	.409
21	-.194	.068	-.382	-.222	-.310	1.008	-.234
22	-.327	.132	-.316	-.236	-.169	1.024	-.393
23	-.379	-.354	-.380	-.242	-.028	1.016	-.497
24	-.092	-.370	-.380	-.210	.002	.992	-.049
25	-.212	-.210	-.054	.136	-.232	.623	-.143
26	-.200	-.150	-.386	.228	-.105	-.377	-.094

TABLE 65 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 30°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	.054	-.030	-.464	-.257	-.264	-.313	-.371
2	.024	-.106	-.476	-.343	-.286	-.353	-.423
3	.014	-.134	-.580	-.307	-.329	-.395	-.497
4	-.008	-.152	-.627	-.327	-.351	-.411	-.521
5	-.080	-.337	-.371	-.357	-.379	-.427	-.537
6	-.795	-.752	-.910	-.449	-.476	-.429	-.515
7	.060	.038	.349	-.531	-.399	-.413	-.443
8	.062	.074	.347	.196	.073	-.411	-.126
9	.054	.074	.430	.200	.048	-.280	-.176
10	.050	.024	.468	.194	.016	-.054	-.210
11	-.014	.036	.709	.194	-.024	-.058	-.192
12	-.185	.124	.853	.194	-.062	-.091	-.190
13	.010	-.148	-.554	.120	-.099	-.131	-.162
14	-.058	-.226	-.789	.038	-.004	-.119	-.042
15	-.157	-.331	-.681	-.453	-.435	-.129	-.403
16	-1.030	-.407	-.908	-.487	-.510	-.145	-.160
17	.241	-.689	-1.283	-.501	-.512	-.137	-.132
18	.512	.110	-.006	-.509	-.446	.087	.012
19	.637	.234	.267	-.479	-.192	1.002	.182
20	.412	.242	.275	-.116	-.224	.994	-.405
21	-.245	.246	-.394	-.134	-.188	.998	-.405
22	-.402	.355	.018	-.140	-.028	1.026	-.405
23	-.512	-.427	-.390	-.144	-.056	1.018	-.401
24	-.054	-.447	-.384	-.112	.058	.988	-.409
25	-.153	-.132	.181	.104	-.308	.599	-.403
26	-.102	-.078	-.392	.251	-.002	-.403	-.405
				$\delta_e = -30°$			
1	-.048	-.110	-.571	-.355	-.341	-.374	-.433
2	-.054	-.211	-.638	-.443	-.369	-.412	-.497
3	-.044	-.219	-.822	-.419	-.432	-.459	-.587
4	-.076	-.235	-.794	-.447	-.464	-.485	-.623
5	-.191	-.578	-.820	-.515	-.494	-.505	-.651
6	-1.161	-1.713	-1.415	-.651	-.618	-.507	-.645
7	.030	.106	.453	-.653	-.564	-.495	-.591
8	.060	.177	.466	.311	.175	-.493	-.046
9	.070	.191	.530	.315	.155	-.392	-.082
10	.066	.062	.567	.313	.141	.040	-.112
11	-.018	.199	.688	.315	.078	.034	-.090
12	-.175	.311	.943	.311	.046	.002	-.078
13	-.068	-.217	-.858	.295	.012	-.042	-.046
14	-.167	-.363	-1.271	.172	.104	-.026	.090
15	-.273	-.462	-1.172	-.497	-.522	-.032	-.419
16	-1.345	-.610	-1.626	-.527	-.631	-.048	-.214
17	.444	-1.783	-.951	-.537	-.657	-.040	-.265
18	.651	.227	.010	-.549	-.647	.176	.084
19	.685	.396	.389	-.509	-.110	.978	.309
20	.538	.422	.377	-.060	-.122	.964	-.419
21	-.289	.434	-.421	-.076	-.072	.970	-.417
22	-.478	.560	.200	-.080	.118	1.012	-.419
23	-.635	-.498	-.419	-.098	-.112	.992	-.419
24	.010	-.530	-.417	-.070	.110	.954	-.415
25	-.070	-.020	.291	.112	-.456	.556	-.417
26	.020	.044	-.419	.261	.106	-.418	-.417
				$\delta_e = -40°$			
1	-.138	-.226	-.710	-.246	-.320	-.365	-.424
2	-.209	-.448	-.781	-.255	-.338	-.405	-.493
3	-.164	-.469	-1.101	-.236	-.402	-.452	-.584
4	-.172	-.448	-1.350	-.319	-.445	-.480	-.626
5	-.322	-.865	-1.509	-.356	-.487	-.502	-.657
6	-1.670	-2.339	-2.165	-.402	-.634	-.510	-.661
7	.000	.190	.543	-.644	-.610	-.504	-.624
8	.047	.285	.555	.424	.276	-.508	.028
9	.069	.313	.598	.432	.256	-.440	-.012
10	.083	.083	.614	.436	.260	.135	-.040
11	.006	.372	.662	.442	.177	.127	-.014
12	-.103	.493	.899	.440	.145	.091	.002
13	-.091	-.305	-1.089	.428	.101	.044	.034
14	-.383	-.517	-1.298	.303	.179	.071	.168
15	-.445	-.653	-1.449	-.519	-.533	.058	-.422
16	-1.800	-.828	-1.879	-.552	-.646	.034	-.208
17	.427	-2.267	-2.477	-.578	-.694	.040	-.279
18	.680	.341	.048	-.590	-.712	.248	.127
19	.739	.535	.396	-.560	-.034	.937	.352
20	.672	.574	.427	.042	-.040	.917	-.418
21	-.322	.622	-.431	.024	.026	.917	-.418
22	-.540	.754	.312	.018	.217	.978	-.418
23	-.777	-.511	-.431	.014	-.117	.952	-.420
24	.075	-.576	-.427	.032	.143	.879	-.418
25	.020	.053	.346	.071	-.491	.510	-.420
26	.150	.101	-.431	.315	.181	-.417	-.422

TABLE 66

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.006	-.038	-.285	-.367	-.409	-.478	-.511
2	-.255	-.388	-.470	-.488	-.519	-.557	-.665
3	-.317	-.408	-.462	-.474	-.493	-.518	-.590
4	-.327	-.410	-.447	-.458	-.465	-.500	-.539
5	-.283	-.429	-.409	-.442	-.455	-.475	-.493
6	-.360	-.453	-.409	-.432	-.433	-.449	-.448
7	-.184	-.342	-.723	-.422	-.435	-.429	-.426
8	-.311	-.459	-.753	-.384	-.078	-.406	.232
9	-.386	-.457	-.642	-.418	-.098	-.384	.283
10	-.416	-.419	-.593	-.420	-.048	.073	.370
11	-.392	-.431	-.621	-.365	-.002	.110	.477
12	-.370	-.390	-.949	-.337	.016	.137	.576
13	.420	.276	.049	-.297	-.010	.131	.691
14	-.327	-.334	-.346	-.239	-.130	.214	.818
15	-.374	-.467	-.455	-.566	-.774	.253	-.388
16	-.398	-.449	-.407	-.522	-.607	.284	-.832
17	-.259	-.501	-.370	-.484	-.555	.333	-.853
18	-.430	-.398	-.221	-.454	-.541	.096	.620
19	-.406	-.517	-1.043	-.438	.451	-.369	.457
20	-.325	-.441	-.957	.223	.607	-.331	-.384
21	-.582	-.416	-.381	.285	.762	-.463	-.382
22	-.762	-.441	-.875	.337	.924	-.359	-.386
23	-.693	-.427	-.387	.359	-1.250	-.739	-.396
24	.499	-.414	-.383	.464	.729	-1.261	-.382
25	.695	.163	-.747	-1.679	-.443	-.404	-.384
26	.921	.054	-.385	.502	.639	-.382	-.386
				$\delta_e = 30°$			
1	-.039	-.238	-.346	-.428	-.427	-.430	-.433
2	-.319	-.407	-.404	-.408	-.423	-.436	-.437
3	-.378	-.427	-.404	-.410	-.407	-.422	-.419
4	-.388	-.429	-.406	-.402	-.381	-.408	-.400
5	-.319	-.419	-.384	-.382	-.365	-.380	-.384
6	-.445	-.413	-.360	-.366	-.355	-.370	-.372
7	-.110	-.269	-.553	-.354	-.361	-.360	-.374
8	-.333	-.519	-.722	-.442	-.127	-.354	.195
9	-.366	-.583	-.909	-.542	-.157	-.349	.237
10	-.394	-.423	-.855	-.562	-.125	.028	.324
11	-.453	-.557	-.722	-.556	-.075	.063	.431
12	-.535	-.557	-.938	-.510	-.046	.087	.533
13	.301	-.082	-.223	-.434	-.038	.083	.650
14	-.404	-.405	-.372	-.268	-.125	.150	.791
15	-.435	-.437	-.388	-.420	-.496	.198	-.392
16	-.439	-.417	-.376	-.396	-.437	.242	-.461
17	-.187	-.403	-.372	-.376	-.403	.291	-.499
18	-.528	-.347	-.276	-.366	-.387	.093	.588
19	-.528	-.735	-.946	-.366	.397	-.281	.499
20	-.498	-.890	-1.173	.186	.546	-.210	-.390
21	-.469	-.898	-.374	.246	.712	-.305	-.390
22	-.535	-.623	-1.030	.300	.887	-.212	-.388
23	-.549	-.355	-.378	.338	-.685	-.539	-.396
24	.465	-.349	-.382	.438	.688	-.998	-.386
25	.648	.116	-1.171	-.634	-.383	-.376	-.392
26	.880	.038	-.376	.580	.607	-.386	-.394
				$\delta_e = 20°$			
1	-.063	-.299	-.411	-.463	-.462	-.444	-.465
2	-.354	-.409	-.407	-.455	-.464	-.446	-.478
3	-.411	-.437	-.403	-.444	-.444	-.434	-.445
4	-.433	-.447	-.407	-.438	-.420	-.418	-.421
5	-.344	-.433	-.385	-.426	-.404	-.388	-.394
6	-.417	-.400	-.366	-.408	-.396	-.376	-.374
7	-.047	-.303	-.214	-.392	-.398	-.368	-.378
8	-.358	-.488	-.389	-.283	-.060	-.358	.217
9	-.411	-.537	-.619	-.337	-.078	-.352	.264
10	-.443	-.425	-.587	-.349	-.040	.055	.356
11	-.451	-.510	-.202	-.309	-.006	.095	.459
12	-.508	-.439	-.425	-.309	.010	.123	.561
13	.184	-.240	-.368	-.283	-.012	.115	.683
14	-.431	-.425	-.381	-.206	-.120	.186	.807
15	-.451	-.445	-.375	-.493	-.618	.224	-.384
16	-.419	-.435	-.385	-.463	-.498	.255	-.567
17	-.051	-.396	-.372	-.436	-.454	.301	-.585
18	-.557	-.321	-.294	-.408	-.438	.079	.600
19	-.545	-.573	-.605	-.408	.422	-.289	.502
20	-.358	-.679	-.690	.222	.586	-.218	-.378
21	-.457	-.681	-.375	.275	.735	-.305	-.380
22	-.492	-.441	-.688	.309	.894	-.206	-.380
23	-.522	-.364	-.381	.305	-.821	-.535	-.388
24	.474	-.358	-.375	.442	.705	-.990	-.378
25	.664	.154	-.678	-1.307	-.396	-.386	-.378
26	.893	.047	-.375	.511	.622	-.392	-.380

TABLE 66 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	-.093	-.294	-.462	-.508	-.489	-.466	-.520
2	-.378	-.435	-.450	-.492	-.477	-.470	-.568
3	-.433	-.453	-.440	-.486	-.451	-.457	-.530
4	-.465	-.461	-.436	-.474	-.425	-.437	-.498
5	-.346	-.449	-.414	-.459	-.417	-.419	-.470
6	-.412	-.420	-.400	-.445	-.411	-.399	-.450
7	-.056	-.220	.266	-.437	-.417	-.393	-.440
8	-.338	-.351	.008	-.140	.002	-.383	.271
9	-.392	-.388	.058	-.152	.016	-.379	.317
10	-.417	-.418	.192	-.167	.058	.121	.410
11	-.414	-.339	.672	-.152	.090	.158	.508
12	-.443	-.276	.098	-.134	.086	.186	.610
13	.078	-.186	-.434	-.136	.022	.178	.713
14	-.461	-.453	-.442	-.134	-.126	.251	.829
15	-.479	-.473	-.430	-.502	-.481	.283	-.396
16	-.419	-.453	-.422	-.476	-.471	.306	-.663
17	.113	-.422	-.412	-.453	-.447	.344	-.687
18	-.491	-.188	-.286	-.431	-.427	.083	.627
19	-.493	-.310	-.336	-.419	.467	-.342	.468
20	-.113	-.357	-.348	.287	.613	-.271	-.390
21	-.533	-.341	-.392	.341	.762	-.364	-.390
22	-.579	-.202	-.458	.400	.914	-.259	-.388
23	-.600	-.427	-.390	.435	-.515	-.603	-.400
24	.505	-.429	-.386	.494	.715	-1.043	-.390
25	.700	.206	-.348	-.974	-.413	-.405	-.388
26	.913	.063	-.388	.577	.645	-.374	-.390
				$\delta_e = 0°$			
1	-.115	-.366	-.603	-.585	-.563	-.604	-.575
2	-.404	-.502	-.540	-.633	-.598	-.640	-.682
3	-.451	-.514	-.515	-.627	-.575	-.612	-.617
4	-.477	-.520	-.501	-.623	-.547	-.594	-.590
5	-.349	-.488	-.470	-.617	-.530	-.576	-.559
6	-.428	-.468	-.483	-.631	-.531	-.548	-.530
7	-.040	-.168	.872	-.601	-.537	-.536	-.509
8	-.273	-.229	.914	-.028	.094	-.526	.328
9	-.319	-.253	.953	.008	.122	-.506	.386
10	-.325	-.338	.943	-.002	.163	.196	.462
11	-.275	-.202	.886	.012	.179	.240	.563
12	-.325	-.138	.458	.022	.157	.276	.652
13	-.081	-.346	-.695	.008	.031	.264	.748
14	-.479	-.542	-.593	-.040	-.163	.336	.845
15	-.481	-.532	-.528	-.599	-.748	.370	-.377
16	-.455	-.500	-.503	-.581	-.630	.386	-.843
17	.572	-.472	-.497	-.563	-.591	.404	-.825
18	-.018	-.079	-.246	-.538	-.573	.052	.662
19	.105	-.069	-.367	-.516	.522	-.560	.462
20	.438	-.097	-.261	.349	.659	-.526	-.379
21	-.624	-.067	-.391	.399	.807	-.636	-.373
22	-.701	.012	-.334	.462	.931	-.532	-.369
23	-.683	-.522	-.389	.508	-1.181	-.778	-.371
24	.556	-.522	-.391	.548	.738	-1.304	-.375
25	.737	.249	-.279	-.923	-.502	-.512	-.375
26	.927	.055	-.389	.575	.652	-.390	-.373
				$\delta_e = -10°$			
1	-.177	-.453	-.733	-.617	-.668	-.672	-.705
2	-.478	-.588	-.655	-.690	-.740	-.738	-.866
3	-.540	-.610	-.622	-.702	-.710	-.714	-.786
4	-.563	-.612	-.602	-.698	-.682	-.688	-.731
5	-.399	-.594	-.560	-.711	-.660	-.666	-.699
6	-.498	-.575	-.550	-.715	-.646	-.638	-.667
7	-.014	-.012	.944	-.733	-.652	-.618	-.637
8	-.242	-.066	.918	.196	.222	-.600	.409
9	-.286	-.078	.940	.247	.260	-.584	.463
10	-.284	-.312	.960	.243	.298	.286	.533
11	-.222	-.002	.924	.253	.292	.332	.629
12	-.246	.022	.655	.251	.246	.364	.709
13	-.236	-.509	-.853	.206	.040	.340	.798
14	-.587	-.622	-.747	.065	-.222	.420	.858
15	-.587	-.618	-.606	-.708	-.964	.448	-.391
16	-.526	-.598	-.580	-.682	-.812	.454	-1.040
17	.498	-.555	-.562	-.654	-.752	.438	-1.034
18	.948	.097	-.183	-.630	-.726	.012	.705
19	.990	.197	.153	-.609	.588	-.696	.415
20	.468	.195	.195	.439	.724	-.672	-.389
21	-.790	.219	-.404	.482	.858	-.782	-.393
22	-.948	.171	.106	.534	.928	-.686	-.387
23	-.855	-.630	-.404	.567	-1.420	-.938	-.389
24	.605	-.614	-.410	.607	.774	-1.396	-.385
25	.786	.322	.195	-1.567	-.632	-.590	-.385
26	.925	.050	-.408	.538	.662	-.396	-.385

TABLE 66 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	-.290	-.545	-.813	-.721	-.747	-.785	-.802
2	-.530	-.639	-.741	-.800	-.791	-.858	-.956
3	-.593	-.683	-.713	-.846	-.765	-.843	-.880
4	-.625	-.707	-.701	-.816	-.725	-.811	-.828
5	-.413	-.681	-.649	-.822	-.703	-.787	-.794
6	-.548	-.657	-.637	-.838	-.693	-.762	-.760
7	-.008	.138	.771	-.844	-.693	-.742	-.728
8	-.194	.112	.797	.379	.327	-.720	.466
9	-.234	.118	.777	.423	.373	-.683	.512
10	-.222	-.212	.779	.429	.410	.370	.602
11	-.141	.188	.729	.427	.382	.413	.692
12	-.141	.156	.514	.409	.317	.439	.762
13	-.417	-.631	-.976	.339	.056	.413	.834
14	-.637	-.653	-.811	.128	-.245	.490	.878
15	-.643	-.685	-.687	-.828	-.876	.500	-.414
16	-.560	-.677	-.665	-.796	-.803	.486	-1.112
17	.480	-.633	-.647	-.774	-.795	.467	-1.122
18	.911	.242	-.187	-.754	-.763	-.055	.734
19	.968	.415	.380	-.727	.620	-.827	.380
20	.502	.427	.460	.507	.751	-.823	-.410
21	-.853	.451	-.414	.543	.876	-.923	-.414
22	-1.042	.291	.355	.595	.924	-.815	-.410
23	-.942	-.699	-.414	.615	-1.082	-1.122	-.422
24	.631	-.687	-.412	.643	.783	-1.392	-.408
25	.806	.365	.418	-1.705	-.687	-.699	-.410
26	.925	.030	-.412	.531	.659	-.411	-.414
				$\delta_e = -30°$			
1	-.477	-.607	-.783	-.732	-.767	-.800	-.805
2	-.585	-.677	-.735	-.840	-.815	-.851	-.880
3	-.621	-.718	-.719	-.840	-.795	-.826	-.837
4	-.641	-.736	-.713	-.824	-.759	-.812	-.821
5	-.403	-.708	-.673	-.834	-.737	-.788	-.797
6	-.569	-.685	-.667	-.856	-.725	-.768	-.763
7	-.066	.284	.715	-.874	-.729	-.752	-.737
8	-.146	.302	.825	.514	.432	-.737	.500
9	-.160	.317	.831	.558	.472	-.709	.534
10	-.136	-.129	.841	.564	.502	.436	.627
11	-.044	.375	.745	.556	.466	.481	.713
12	-.044	.266	.456	.532	.376	.511	.785
13	-.519	-.696	-.964	.438	.060	.469	.847
14	-.651	-.677	-.757	.154	-.277	.552	.869
15	-.653	-.702	-.697	-.816	-.876	.564	-.432
16	-.575	-.694	-.679	-.792	-.823	.552	-.960
17	.477	-.673	-.675	-.774	-.803	.495	-.962
18	.904	.383	-.151	-.744	-.769	-.063	.729
19	.948	.611	.494	-.710	.667	-.869	.392
20	.521	.629	.578	.558	.785	-.857	-.434
21	-.866	.649	-.432	.590	.894	-.966	-.434
22	-.980	.349	.474	.638	.916	-.871	-.430
23	-.892	-.746	-.432	.612	-1.135	-1.095	-.446
24	.653	-.730	-.428	.662	.799	-1.315	-.430
25	.816	.419	.512	-1.382	-.705	-.705	-.432
26	.918	.030	-.432	.550	.661	-.428	-.434
				$\delta_e = -40°$			
1	-.542	-.650	-.675	-.706	-.747	-.753	-.767
2	-.566	-.686	-.663	-.810	-.804	-.795	-.815
3	-.581	-.698	-.650	-.775	-.820	-.779	-.789
4	-.593	-.690	-.644	-.782	-.786	-.775	-.777
5	-.374	-.680	-.620	-.804	-.758	-.735	-.749
6	-.548	-.674	-.622	-.829	-.741	-.719	-.721
7	-.041	.432	.717	-.933	-.745	-.725	-.707
8	-.037	.478	.788	.606	.509	-.699	.548
9	-.037	.496	.814	.653	.552	-.669	.590
10	.004	.016	.782	.655	.572	.498	.669
11	.092	.532	.723	.637	.525	.540	.743
12	.092	.360	.485	.594	.430	.566	.803
13	-.628	-.676	-.772	.492	.073	.518	.857
14	-.597	-.640	-.646	.192	-.279	.598	.863
15	-.603	-.654	-.638	-.749	-.810	.596	-.432
16	-.554	-.650	-.626	-.735	-.790	.572	-.888
17	.495	-.650	-.622	-.714	-.776	.518	-.892
18	.922	.508	-.099	-.692	-.749	-.082	.753
19	.953	.760	.483	-.671	.648	-.813	.404
20	.556	.788	.584	.590	.800	-.795	-.428
21	-.789	.792	-.420	.624	.899	-.876	-.424
22	-.802	.396	.444	.657	.905	-.789	-.428
23	-.816	-.718	-.426	.641	-.776	-1.012	-.440
24	.685	-.710	-.418	.692	.798	-1.125	-.424
25	.843	.450	.493	-.986	-.711	-.683	-.430
26	.930	.038	-.418	.575	.663	-.424	-.428

TABLE 67

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.019	.144	.043	-.025	-.179	-.295	-.354
2	-.004	.082	-.057	-.207	-.268	-.352	-.462
3	.009	.243	-.026	-.140	-.264	-.352	-.398
4	.028	.274	.125	-.002	-.118	-.375	-.388
5	-.085	.300	.380	.123	-.227	-.282	-.738
6	-.064	.105	-.136	.075	-.611	-.291	-1.200
7	-.170	-.259	-.450	-.383	-1.089	-.450	-1.706
8	-.267	-.458	-.671	-.404	-.187	-.613	.021
9	-.348	-.394	-.987	-.469	-.214	-1.415	.063
10	-.216	-.217	-1.100	-.580	-.208	-.107	.142
11	-.138	-.430	-1.042	-.556	-.162	-.072	.271
12	-.436	-.489	-1.123	-.469	-.112	-.050	.388
13	.585	.409	.078	-.420	-.035	-.040	.544
14	.455	.032	-.053	-.228	-.121	.019	.771
15	.621	.300	.011	-.364	-.595	.065	-.337
16	.208	.551	.166	-.368	-.445	.112	-.379
17	-.170	.010	-.030	-.330	-.784	.202	-.787
18	-.479	-.338	-.087	-.611	-1.981	.131	.433
19	-.477	-.394	-.775	-.818	.229	-1.202	.525
20	-.527	-.536	-1.365	.033	.393	-1.307	-.338
21	-.343	-.721	-.340	.079	.611	-1.234	-.335
22	-.699	-.610	-1.603	.151	.894	-.800	-.333
23	-.850	-.397	-.342	.222	-1.185	-.796	-.342
24	.284	-.846	-.336	.314	.526	-1.189	-.335
25	.489	.006	-2.240	-1.278	-1.678	-1.844	-.337
26	.835	.038	-.340	.450	.615	-.335	-.342
				$\delta_e = 30°$			
1	.032	.081	-.060	-.113	-.215	-.313	-.427
2	.027	.042	-.149	-.260	-.300	-.395	-.548
3	.029	.133	-.110	-.219	-.321	-.381	-.481
4	.029	.140	.002	-.098	-.179	-.389	-.472
5	-.055	.148	.398	.002	-.306	-.307	-.815
6	-.080	-.088	-.340	-.075	-.717	-.347	-1.302
7	-.044	-.142	-.594	-.602	-1.262	-.509	-1.772
8	-.113	-.213	-.600	-.383	-.185	-.670	.041
9	-.116	-.221	-.764	-.442	-.200	-1.471	.084
10	-.071	-.098	-.733	-.475	-.165	-.102	.170
11	-.073	-.267	-.584	-.465	-.112	-.066	.304
12	-.193	-.333	-.830	-.419	-.075	-.042	.429
13	.569	.296	.029	-.388	-.033	-.032	.579
14	.378	.037	-.110	-.210	-.150	.030	.807
15	.565	.158	-.085	-.454	-.675	.078	-.347
16	-.057	.348	.099	-.438	-.506	.127	-.431
17	-.116	-.160	-.232	-.392	-.856	.209	-.852
18	-.265	-.300	-.097	-.669	-2.060	.118	.450
19	-.303	-.354	-.907	-.888	.248	-1.315	.526
20	-.254	-.512	-1.132	.052	.408	-1.419	-.351
21	-.397	-.610	-.350	.110	.621	-1.345	-.341
22	-.792	-.458	-1.333	.188	.902	-.905	-.341
23	-.918	-.463	-.354	.252	-1.273	-.922	-.351
24	.294	-.908	-.350	.344	.538	-1.389	-.341
25	.504	.025	-1.373	-1.362	-1.688	-1.979	-.343
26	.851	.044	-.346	.438	.619	-.343	-.345
				$\delta_e = 20°$			
1	.091	.017	-.094	-.216	-.271	-.395	-.516
2	.058	-.033	-.207	-.316	-.365	-.490	-.675
3	.031	-.011	-.184	-.314	-.382	-.475	-.602
4	.012	.004	-.092	-.226	-.269	-.482	-.567
5	-.068	-.038	.489	-.140	-.401	-.373	-.923
6	-.251	-.473	-.708	-.236	-.852	-.426	-1.435
7	.083	-.098	-.382	-.981	-1.370	-.592	-1.888
8	.015	-.134	-.380	-.288	-.127	-.764	.074
9	-.002	-.163	-.468	-.310	-.127	-1.469	.122
10	-.021	-.042	-.487	-.316	-.083	-.061	.219
11	-.050	-.295	-.061	-.288	-.042	-.021	.342
12	-.245	-.293	-.317	-.246	-.017	-.002	.466
13	.539	.169	-.051	-.240	-.010	.010	.623
14	.293	-.071	-.159	-.162	-.186	.076	.832
15	.500	-.069	-.213	-.546	-.804	.119	-.360
16	-.328	.103	-.114	-.524	-.612	.162	-.420
17	-.033	-.596	-.460	-.470	-.946	.236	-1.004
18	-.118	-.222	-.102	-.756	-2.157	.080	.462
19	-.239	-.366	-.495	-.981	.282	-1.559	.501
20	.019	-.425	-.622	.109	.449	-1.701	-.333
21	-.419	-.467	-.337	.166	.655	-1.607	-.335
22	-.967	-.301	-.871	.242	.912	-1.156	-.331
23	-1.066	-.565	-.341	.304	-1.392	-1.162	-.337
24	.326	-1.082	-.333	.392	.551	-1.613	-.335
25	.537	.075	-.734	-1.470	-1.695	-2.232	-.331
26	.876	.042	-.333	.433	.637	-.336	-.344

TABLE 67 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	.093	-.018	-.064	-.263	-.307	-.451	-.614
2	.021	-.080	-.247	-.332	-.434	-.603	-.823
3	.002	-.113	-.249	-.345	-.411	-.598	-.743
4	.018	-.099	-.181	-.294	-.358	-.590	-.673
5	-.115	-.273	-.296	-.254	-.503	-.474	-1.010
6	-.527	-.860	-1.393	-.351	-1.004	-.507	-1.563
7	.107	-.080	-.169	-1.227	-1.448	-.687	-2.094
8	.010	-.135	-.202	-.115	-.055	-.874	.131
9	.018	-.146	-.202	-.128	-.045	-1.582	.183
10	.027	.016	-.216	-.132	-.002	.014	.271
11	-.082	-.228	.586	-.118	.022	.050	.400
12	-.331	-.205	.105	-.101	.033	.085	.520
13	.290	.072	-.140	-.122	-.004	.089	.669
14	.053	-.117	-.204	-.113	-.239	.161	.860
15	.446	-.193	-.243	-.658	-.996	.203	-.333
16	-.733	-.123	-.305	-.626	-.748	.238	-.513
17	.074	-1.049	-.366	-.555	-1.131	.292	-1.142
18	-.134	-.080	-.089	-.838	-2.368	.054	.495
19	-.204	-.216	-.212	-1.073	.311	-1.936	.478
20	.471	-.236	-.233	.176	.474	-2.130	-.322
21	-.566	-.230	-.315	.233	.683	-2.008	-.326
22	-1.148	-.115	-.494	.298	.930	-1.505	-.327
23	-1.216	-.647	-.319	.363	-1.515	-1.489	-.326
24	.374	-1.211	-.317	.443	.546	-1.907	-.327
25	.578	.135	-.259	-1.565	-1.798	-2.611	-.326
26	.912	.041	-.317	.427	.652	-.323	-.329
				$\delta_e = 0°$			
1	.086	-.068	-.231	-.251	-.319	-.483	-.667
2	-.014	-.151	-.316	-.363	-.522	-.676	-.955
3	-.082	-.219	-.331	-.382	-.502	-.671	-.865
4	-.109	-.229	-.353	-.300	-.437	-.649	-.751
5	-.172	-.546	-.599	-.269	-.602	-.536	-1.110
6	-.813	-1.254	-1.690	-.408	-1.185	-.565	-1.669
7	.082	-.047	.736	-1.063	-1.705	-.745	-2.227
8	-.014	-.080	.924	-.020	.020	-.942	.178
9	-.041	-.092	.950	-.004	.045	-1.692	.231
10	-.035	-.049	.950	-.018	.083	.078	.320
11	-.090	-.127	.862	-.012	.110	.117	.445
12	-.339	-.080	.496	.000	.102	.154	.561
13	.187	-.059	-.300	-.018	-.008	.150	.700
14	-.133	-.194	-.328	-.039	-.325	.214	.873
15	-.055	-.282	-.368	-.769	-1.167	.253	-.310
16	-.942	-.323	-.527	-.698	-.909	.281	-.482
17	.064	-1.542	-.802	-.627	-1.230	.322	-1.339
18	-.160	-.006	-.079	-.927	-2.610	.025	.524
19	-.220	-.016	-.105	-1.161	.366	-2.181	.457
20	.425	-.025	-.236	.229	.543	-2.417	-.306
21	-.608	-.002	-.314	.284	.750	-2.285	-.310
22	-1.302	.076	-.508	.357	.970	-1.776	-.306
23	-1.357	-.730	-.322	.416	-1.697	-1.745	-.308
24	.407	-1.354	-.316	.480	.575	-2.117	-.308
25	.612	.188	-.337	-1.692	-1.850	-2.858	-.308
26	.918	.033	-.316	.429	.697	-.306	-.310
				$\delta_e = -10°$			
1	.018	-.121	-.340	-.296	-.370	-.519	-.763
2	-.080	-.206	-.425	-.458	-.632	-.819	-1.188
3	-.155	-.268	-.439	-.470	-.583	-.857	-1.088
4	-.245	-.335	-.491	-.401	-.553	-.791	-.914
5	-.268	-.815	-1.000	-.425	-.728	-.666	-1.227
6	-1.047	-1.305	-2.107	-.650	-1.348	-.698	-1.857
7	.059	.014	.685	-1.953	-1.907	-.879	-2.581
8	-.012	.018	.792	.138	.122	-1.076	.254
9	-.047	.002	.903	.190	.157	-1.960	.301
10	-.065	-.078	.944	.192	.199	.159	.399
11	-.147	.012	1.002	.196	.199	.201	.523
12	-.319	.035	.695	.194	.173	.243	.634
13	.061	-.181	-.517	.152	-.004	.235	.765
14	-.209	-.280	-.511	.032	-.378	.306	.910
15	-.335	-.346	-.485	-.949	-1.407	.338	-.341
16	-1.131	-.455	-.843	-.846	-1.098	.354	-.613
17	.519	-1.584	-1.365	-.755	-1.382	.374	-1.550
18	.503	.097	-.091	-1.051	-2.846	-.040	.564
19	.935	.183	.150	-1.296	.415	-2.702	.415
20	.462	.198	.165	.292	.583	-3.016	-.339
21	-.734	.228	-.328	.352	.780	-2.881	-.335
22	-1.595	.218	-.082	.411	.957	-2.324	-.337
23	-1.544	-.854	-.326	.468	-1.927	-2.278	-.333
24	.448	-1.537	-.328	.534	.587	-2.660	-.333
25	.652	.257	.115	-1.806	-1.957	-3.368	-.337
26	.928	.016	-.324	.389	.695	-.328	-.339

TABLE 67 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	-.086	-.227	-.546	-.393	-.408	-.602	-.862
2	-.189	-.332	-.624	-.607	-.819	-.980	-1.463
3	-.275	-.422	-.573	-.595	-.725	-1.084	-1.372
4	-.401	-.500	-.717	-.534	-.703	-.986	-1.124
5	-.379	-.984	-1.138	-.605	-.942	-.837	-1.400
6	-.919	-1.154	-1.224	-.767	-1.996	-.859	-2.083
7	.047	.102	.573	-1.632	-2.114	-1.022	-2.915
8	-.018	.125	.721	.315	.251	-1.221	.333
9	-.057	.129	.721	.364	.291	-2.253	.382
10	-.094	-.098	.770	.374	.333	.241	.482
11	-.198	.154	.865	.376	.321	.279	.602
12	-.234	.152	.778	.364	.285	.329	.709
13	-.138	-.367	-.856	.323	.086	.313	.825
14	-.371	-.447	-.838	.153	-.275	.390	.927
15	-.666	-.504	-.797	-1.213	-1.771	.420	-.350
16	-1.069	-.805	-1.304	-1.033	-1.422	.428	-.673
17	.511	-1.229	-1.322	-.918	-1.568	.442	-1.856
18	.906	.215	-.043	-1.211	-3.291	-.050	.602
19	.937	.371	.361	-1.442	.502	-3.323	.354
20	.509	.396	.419	.378	.675	-3.711	-.352
21	-.837	.434	-.353	.423	.859	-3.544	-.343
22	-1.980	.336	.296	.483	.978	-2.906	-.348
23	-1.802	-1.012	-.351	.536	-2.253	-2.811	-.348
24	.495	-1.852	-.351	.595	.631	-3.102	-.354
25	.701	.307	.366	-2.016	-2.191	-3.873	-.350
26	.945	.053	-.355	.370	.743	-.361	-.352
				$\delta_e = -30°$			
1	-.182	-.390	-.825	-.543	-.489	-.627	-.892
2	-.374	-.533	-.819	-.698	-.938	-1.043	-1.558
3	-.488	-.596	-.806	-.641	-.766	-1.189	-1.469
4	-.587	-.669	-.862	-.592	-.908	-1.035	-1.166
5	-.393	-.812	-.781	-.696	-1.010	-.863	-1.446
6	-.761	-.822	-.788	-.976	-1.010	-.883	-2.050
7	.053	.222	.649	-1.025	-.986	-.988	-2.716
8	-.057	.261	.781	.457	.345	-1.197	.376
9	-.105	.275	.823	.504	.394	-1.221	.425
10	-.130	-.107	.841	.512	.431	.326	.517
11	-.113	.339	.821	.504	.411	.367	.629
12	-.101	.313	.685	.494	.361	.404	.732
13	-.401	-.554	-1.367	.457	.172	.387	.836
14	-.607	-.651	-1.602	.249	-.105	.459	.927
15	-.771	-.671	-.948	-1.349	-1.938	.488	-.378
16	-.785	-.786	-.889	-1.122	-1.558	.496	-.680
17	.470	-.832	-.800	-.988	-1.606	.500	-1.956
18	.885	.339	-.095	-1.259	-3.347	.150	.618
19	.927	.552	.449	-1.427	.548	-3.400	.328
20	.565	.588	.544	.453	.717	-3.910	-.375
21	-.879	.624	-.388	.504	.885	-3.820	-.373
22	-2.239	.469	.480	.563	.965	-3.213	-.371
23	-1.964	-1.164	-.379	.610	-2.429	-3.121	-.375
24	.530	-1.246	-.383	.651	.651	-3.410	-.373
25	.733	.384	.511	-2.178	-1.768	-1.813	-.373
26	.933	.164	-.384	.371	.776	-.381	-.380
				$\delta_e = -40°$			
1	-.430	-.593	-.584	-.428	-.579	-.630	-.770
2	-.457	-.570	-.549	-.634	-.700	-.776	-1.067
3	-.469	-.570	-.549	-.673	-.764	-.756	-.946
4	-.480	-.564	-.547	-.675	-.764	-.749	-.994
5	-.307	-.552	-.503	-.719	-.732	-.795	-.984
6	-.473	-.540	-.505	-.800	-.764	-.832	-.883
7	-.096	.312	.640	-.871	-.752	-.803	-.935
8	-.055	.399	.743	.539	.393	-.752	.383
9	-.043	.426	.788	.598	.440	-.772	.429
10	-.004	-.006	.800	.616	.476	.359	.508
11	.088	.527	.790	.632	.458	.394	.607
12	.104	.464	.681	.620	.393	.425	.683
13	-.508	-.519	-.709	.554	.204	.405	.770
14	-.479	-.532	-.562	.337	-.038	.464	.893
15	-.494	-.540	-.541	-.834	-1.240	.481	-.395
16	-.480	-.511	-.517	-.818	-.948	.481	-.643
17	.447	-.521	-.509	-.836	-1.038	.480	-1.361
18	.875	.434	-.089	-.857	-.893	.197	.621
19	.928	.690	.483	-.838	.528	-.834	.502
20	.645	.743	.543	.448	.669	-.513	-.397
21	-.768	.778	-.396	.491	.817	-.618	-.395
22	-1.404	.560	.469	.529	.966	-.665	-.395
23	-1.264	-.725	-.392	.562	-1.962	-1.372	-.401
24	.529	-.747	-.396	.592	.663	-2.234	-.397
25	.711	.411	.507	-1.780	-.984	-1.047	-.397
26	.947	.206	-.392	.448	.720	-.388	-.397

TABLE 68

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.014	.232	.385	.326	.132	-.049	-.248
2	.020	.306	.393	.362	.154	-.078	-.393
3	.030	.335	.439	.378	.107	-.087	-.415
4	.057	.345	.475	.376	.025	-.151	-.553
5	-.071	.326	.517	.354	-.064	-.216	-.717
6	-.147	.322	.806	.308	-.319	-.274	-.888
7	-.174	-.347	-.830	.151	-.475	-.330	-1.054
8	-.301	-.667	-.788	-.606	-.409	-.412	-.257
9	-.315	-.487	-1.076	-.594	-.432	-.676	-.240
10	-.210	-.230	-1.202	-.710	-.432	-.369	-.200
11	-.246	-.630	-1.192	-.638	-.387	-.338	-.106
12	-1.214	-1.271	-1.567	-.575	-.335	-.338	-.022
13	.459	.324	.305	-.539	-.187	-.326	.096
14	.630	.567	.407	-.378	-.086	-.297	.345
15	.685	.632	.409	-.235	-.646	-.254	-.341
16	.410	.622	.365	-.338	-.726	-.214	-.343
17	-.257	.579	.269	-.419	-1.058	-.107	-.786
18	-.602	-.517	-.030	-.491	-1.323	.167	.156
19	-.689	-.671	-1.062	-.594	-.121	.511	.495
20	-1.483	-.634	-1.639	-.264	-.025	.480	-.329
21	-.315	-.846	-.343	-.237	.150	.408	-.329
22	-.711	-.926	-2.076	-.195	.486	.526	-.329
23	-1.394	-.228	-.343	-.153	-.449	.293	-.329
24	.002	-.480	-.343	-.052	.259	-.464	-.329
25	.141	-.259	-2.333	-.521	-.883	-.157	-.329
26	.469	-.078	-.347	.380	.274	-.355	-.329
				$\delta_e = 30°$			
1	-.008	.121	.250	.230	.014	-.156	-.329
2	.020	.179	.298	.258	.028	-.190	-.485
3	.032	.199	.336	.270	-.022	-.206	-.507
4	.042	.199	.364	.256	-.100	-.277	-.645
5	-.054	.145	.446	.224	-.183	-.333	-.808
6	-.155	.113	.706	.157	-.430	-.388	-.988
7	-.095	-.177	-.734	-.020	-.671	-.428	-1.152
8	-.157	-.241	-.642	-.494	-.359	-.505	-.230
9	-.143	-.288	-.908	-.530	-.376	-.796	-.208
10	-.103	-.149	-.918	-.528	-.353	-.329	-.170
11	-.121	-.382	-.654	-.520	-.307	-.303	-.072
12	-.670	-.579	-.954	-.496	-.259	-.293	.006
13	.501	.183	.268	-.484	-.125	-.281	.128
14	.559	.390	.346	-.315	-.042	-.246	.371
15	.606	.453	.336	-.345	-.825	-.204	-.325
16	.264	.414	.302	-.433	-.827	-.166	-.397
17	-.185	.322	.136	-.530	-1.195	-.067	-.866
18	-.342	-.378	-.058	-.609	-1.512	.176	.170
19	-.425	-.441	-1.268	-.675	-.072	.368	.505
20	-.425	-.525	-1.186	-.210	.046	.329	-.319
21	-.396	-.628	-.340	-.177	.225	.248	-.319
22	-.893	-.577	-1.652	-.135	.560	.378	-.319
23	-1.596	-.358	-.332	-.085	-.514	.141	-.319
24	.024	-.628	-.334	.008	.279	-.705	-.319
25	.183	-.187	-1.412	-.601	-1.010	-.283	-.319
26	.527	-.020	-.338	.383	.335	-.341	-.319
				$\delta_e = 20°$			
1	.036	.030	.147	.086	-.099	-.261	-.437
2	.020	.067	.204	.110	-.097	-.290	-.567
3	.036	.077	.232	.110	-.147	-.331	-.612
4	.036	.073	.267	.086	-.209	-.392	-.799
5	-.056	-.006	.479	.053	-.288	-.452	-.940
6	-.127	-.101	.407	-.035	-.547	-.511	-1.211
7	.028	-.101	-.519	-.220	-.822	-.540	-1.419
8	-.058	-.109	-.493	-.371	-.292	-.606	-.157
9	-.048	-.164	-.621	-.380	-.302	-.943	-.125
10	-.020	-.057	-.627	-.361	-.265	-.273	-.076
11	-.044	-.244	-.102	-.347	-.226	-.238	.032
12	-.189	-.329	-.440	-.327	-.195	-.224	.127
13	.390	.075	.163	-.316	-.087	-.216	.258
14	.481	.188	.206	-.220	-.027	-.175	.505
15	.529	.253	.198	-.461	-.894	-.140	-.318
16	.052	.194	.112	-.555	-.923	-.103	-.487
17	-.082	.006	-.112	-.659	-1.288	-.010	-1.123
18	-.193	-.299	-.067	-.739	-1.625	.193	.225
19	-.203	-.362	-.699	-.763	-.048	.197	.519
20	-.012	-.408	-.701	-.155	.075	.158	-.316
21	-.485	-.467	-.318	-.110	.251	.053	-.316
22	-1.157	-.360	-1.132	-.063	.588	.216	-.316
23	-1.883	-.477	-.312	-.016	-.547	-.047	-.316
24	.085	-.824	-.312	.071	.282	-1.027	-.316
25	.247	-.109	-.851	-.678	-1.089	-.441	-.316
26	.618	.030	-.314	.390	.354	-.339	-.316

TABLE 68 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	.071	-.012	.061	-.059	-.218	-.337	-.545
2	.055	-.012	.045	-.059	-.232	-.352	-.651
3	.055	-.018	.102	-.080	-.294	-.423	-.741
4	.043	-.033	.177	-.112	-.351	-.480	-.943
5	-.032	-.144	.173	-.151	-.427	-.545	-1.092
6	-.178	-.335	-.130	-.229	-.713	-.596	-1.355
7	.085	-.082	-.246	-.414	-1.240	-.620	-1.614
8	.037	-.092	-.269	-.184	-.170	-.679	-.096
9	.039	-.113	-.275	-.171	-.162	-1.079	-.065
10	.028	-.014	-.295	-.184	-.131	-.169	-.010
11	-.020	-.218	.055	-.173	-.109	-.138	.092
12	-.211	-.222	.118	-.171	-.086	-.114	.192
13	.172	-.006	-.016	-.171	-.014	-.114	.316
14	.398	.045	-.010	-.145	.006	-.071	.561
15	.406	.051	-.039	-.571	-1.064	-.043	-.300
16	-.213	-.016	-.165	-.665	-1.012	-.004	-.582
17	.016	-.417	-.281	-.776	-1.329	.069	-1.339
18	-.108	-.168	-.059	-.861	-1.969	.238	.261
19	-.162	-.238	-.332	-.880	.057	.018	.533
20	.359	-.265	-.346	-.065	.191	-.028	-.300
21	-.546	-.273	-.299	-.027	.386	-.144	-.300
22	-1.347	-.164	-.356	.016	.715	.024	-.300
23	-2.126	-.563	-.293	.063	-.655	-.264	-.300
24	.128	-.940	-.295	.143	.339	-1.388	-.300
25	.298	-.060	-.377	-.761	-1.322	-.620	-.300
26	.677	.057	-.295	.390	.462	-.289	-.300
				$\delta_e = 0°$			
1	.109	-.035	-.150	-.155	-.288	-.425	-.588
2	.091	-.080	-.150	-.166	-.320	-.436	-.686
3	.079	-.101	-.172	-.174	-.380	-.538	-.785
4	.051	-.138	-.202	-.203	-.427	-.577	-.982
5	-.071	-.270	-.324	-.226	-.510	-.646	-1.128
6	-.578	-.905	-.472	-.290	-.831	-.701	-1.373
7	.109	-.058	.138	-.571	-1.343	-.732	-1.663
8	.065	-.068	.389	-.077	-.098	-.787	-.061
9	.061	-.076	.749	-.075	-.088	-1.262	-.032
10	.040	-.008	.848	-.089	-.057	-.112	.022
11	-.044	-.144	.802	-.089	-.045	-.076	.128
12	-.283	-.103	.559	-.089	-.035	-.053	.219
13	.147	-.080	-.152	-.106	.022	-.053	.337
14	.109	-.115	-.194	-.068	.004	-.014	.572
15	.107	-.171	-.253	-.673	-1.124	.018	-.298
16	-.816	-.268	-.387	-.760	-1.078	.047	-.598
17	.034	-.911	-.508	-.876	-1.394	.123	-1.361
18	-.103	-.085	-.047	-.963	-2.090	.239	.272
19	-.200	-.062	-.101	-.983	.092	-.213	.529
20	.384	-.062	-.196	-.008	.229	-.274	-.298
21	-.604	-.049	-.302	.025	.420	-.407	-.300
22	-1.521	.064	-.520	.079	.747	-.202	-.300
23	-2.337	-.635	-.300	.118	-.680	-.519	-.300
24	.166	-1.041	-.300	.199	.349	-1.796	-.300
25	.339	-.004	-.342	-.799	-1.404	-.857	-.300
26	.729	.080	-.300	.393	.492	-.299	-.300
				$\delta_e = -10°$			
1	.086	-.075	-.341	-.244	-.373	-.489	-.672
2	.029	-.119	-.280	-.331	-.437	-.505	-.704
3	.008	-.164	-.435	-.323	-.497	-.618	-.905
4	-.020	-.212	-.438	-.370	-.557	-.658	-1.105
5	-.184	-.570	-.700	-.429	-.627	-.730	-1.302
6	-.967	-1.370	-1.264	-.506	-.984	-.783	-1.471
7	.090	-.006	.494	-.774	-1.323	-.807	-1.909
8	.041	.004	.685	.063	.000	-.859	.016
9	.039	.002	.804	.093	.024	-1.374	.054
10	.033	.010	.855	.093	.056	-.040	.113
11	-.129	-.046	.980	.093	.056	.000	.217
12	-.335	.024	.841	.093	.048	.026	.310
13	.024	-.164	-.472	.071	.054	.024	.433
14	-.084	-.220	-.542	.041	-.012	.064	.668
15	-.227	-.313	-.605	-.752	-1.166	.091	-.310
16	-1.033	-.485	-.845	-.833	-1.134	.113	-.680
17	.131	-1.493	-1.038	-.953	-1.513	.171	-1.590
18	-.078	.028	-.054	-1.045	-2.265	.243	.316
19	.786	.119	.095	-1.063	.140	-.354	.529
20	.457	.141	.091	.059	.283	-.433	-.304
21	-.665	.166	-.302	.096	.473	-.557	-.304
22	-1.671	.259	-.161	.136	.790	-.354	-.306
23	-2.455	-.752	-.300	.181	-.747	-.704	-.306
24	.212	-1.117	-.300	.248	.371	-2.030	-.306
25	.390	.077	.050	-.819	-1.541	-1.002	-.306
26	.771	.115	-.302	.392	.525	-.314	-.306

[redacted]

TABLE 68 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	-.018	-.125	-.584	-.376	-.462	-.602	-.752
2	-.075	-.164	-.439	-.533	-.569	-.623	-.744
3	-.100	-.240	-.726	-.508	-.621	-.773	-1.016
4	-.130	-.309	-.793	-.557	-.690	-.773	-1.213
5	-.283	-.798	-.899	-.633	-.775	-.866	-1.441
6	-1.449	-2.065	-2.380	-.808	-1.200	-.931	-1.616
7	.043	.057	.473	-1.141	-1.397	-.966	-2.154
8	.018	.103	.612	.243	.119	-1.020	.102
9	.018	.109	.676	.276	.156	-1.698	.144
10	.024	.018	.716	.273	.186	.067	.207
11	-.104	.131	.909	.273	.174	.103	.311
12	-.323	.170	.907	.273	.148	.134	.402
13	-.118	-.297	-.809	.245	.091	.120	.520
14	-.181	-.281	-.924	.124	-.051	.176	.742
15	-.378	-.418	-1.006	-.888	-1.192	.193	-.325
16	-1.535	-.705	-1.318	-.949	-1.215	.201	-.758
17	.537	-2.477	-1.748	-1.086	-1.688	.252	-1.815
18	.866	.154	-.062	-1.182	-2.545	.235	.370
19	.909	.307	.312	-1.216	.223	-.773	.533
20	.537	.356	.360	.155	.366	-.909	-.329
21	-.740	.396	-.338	.188	.557	-1.024	-.331
22	-1.870	.392	.177	.227	.850	-.769	-.331
23	-2.486	-.863	-.340	.267	-.828	-1.122	-.331
24	.258	-1.176	-.336	.333	.405	-2.675	-.331
25	.439	.154	.318	-.920	-1.739	-1.430	-.331
26	.823	.139	-.336	.402	.589	-.355	-.331
				$\delta_e = -30°$			
1	-.145	-.230	-.706	-.476	-.510	-.633	-.786
2	-.237	-.369	-.595	-.551	-.624	-.661	-.782
3	-.321	-.413	-.838	-.587	-.675	-.815	-1.067
4	-.394	-.505	-1.043	-.646	-.755	-.806	-1.255
5	-.394	-1.182	-1.543	-.750	-.841	-.901	-1.497
6	-1.470	-1.928	-2.190	-1.026	-1.277	-.972	-1.690
7	.024	.154	.551	-1.437	-1.468	-.992	-2.265
8	-.006	.222	.684	.384	.221	-1.048	.165
9	-.026	.242	.763	.439	.255	-1.784	.204
10	-.026	-.020	.802	.449	.281	.155	.267
11	-.151	.293	.852	.449	.263	.192	.369
12	-.217	.289	.864	.449	.219	.214	.454
13	-.219	-.381	-1.099	.404	.133	.196	.570
14	-.355	-.473	-1.198	.213	-.056	.250	.774
15	-.649	-.517	-1.419	-.965	-1.207	.266	-.352
16	-1.669	-.872	-1.970	-1.000	-1.247	.268	-.784
17	.492	-2.212	-1.767	-1.144	-1.761	.298	-1.884
18	.859	.291	-.006	-1.254	-2.657	.236	.391
19	.910	.481	.415	-1.291	.275	-.919	.534
20	.600	.537	.466	.228	.418	-1.069	-.360
21	-.813	.585	-.360	.266	.600	-1.173	-.360
22	-2.157	.521	.362	.303	.878	-.903	-.360
23	-2.271	-.906	-.360	.331	-.871	-1.286	-.360
24	.327	-1.255	-.360	.388	.432	-2.875	-.360
25	.524	.212	.411	-.982	-1.805	-1.571	-.360
26	.882	.160	-.364	.407	.616	-.355	-.363
				$\delta_e = -40°$			
1	-.436	-.537	-.891	-.289	-.464	-.548	-.724
2	-.491	-.581	-.520	-.122	-.457	-.548	-.713
3	-.495	-.621	-.552	-.040	-.379	-.649	-.945
4	-.545	-.657	-.585	.006	-.427	-.625	-1.108
5	-.343	-.659	-.647	.010	-.538	-.685	-1.327
6	-.614	-.631	-.609	-.222	-.834	-.731	-1.502
7	-.113	.224	.579	-.639	-.901	-.751	-2.053
8	-.119	.313	.673	.475	.310	-.805	.203
9	-.109	.349	.726	.535	.348	-1.464	.242
10	-.083	-.074	.750	.553	.383	.215	.301
11	.002	.469	.778	.569	.374	.245	.402
12	.026	.497	.841	.569	.338	.269	.484
13	-.376	-.553	-1.123	.551	.277	.251	.593
14	-.511	-.519	-1.071	.435	.150	.309	.787
15	-.578	-.555	-.540	-.802	-1.180	.319	-.358
16	-.622	-.623	-.633	-.826	-1.152	.325	-.738
17	.444	-.623	-.651	-.948	-1.674	.357	-1.811
18	.836	.389	-.095	-1.032	-2.607	.311	.415
19	.899	.623	.427	-1.072	.332	-.777	.549
20	.681	.685	.530	.283	.482	-.918	-.364
21	-.735	.747	-.361	.321	.658	-1.048	-.364
22	-1.962	.699	.484	.361	.927	-.813	-.364
23	-2.210	-.651	-.361	.391	-.891	-1.185	-.364
24	.337	-.958	-.355	.439	.472	-2.703	-.364
25	.521	.301	.512	-.906	-1.664	-1.317	-.364
26	.877	.257	-.363	.429	.674	-.361	-.364

TABLE 69

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.026	.212	.454	.408	.202	.058	-.082
2	.012	.324	.527	.440	.204	.045	-.124
3	.037	.361	.585	.454	.202	.035	-.164
4	.065	.378	.615	.454	.167	-.006	-.188
5	-.128	.400	.676	.444	.069	-.027	-.200
6	-.179	.431	.927	.412	.012	-.045	-.182
7	-.171	-.325	-.876	.309	.028	-.068	-.098
8	-.322	-.606	-.817	-.673	-.528	-.088	-.547
9	-.279	-.518	-1.069	-.643	-.581	.014	-.607
10	-.208	-.225	-1.409	-.733	-.617	-.524	-.677
11	-.642	-.922	-1.442	-.667	-.593	-.532	-.647
12	-1.815	-2.418	-2.153	-.606	-.593	-.567	-.653
13	.415	.361	.432	-.641	-.607	-.569	-.637
14	.642	.559	.493	-.673	-.534	-.595	-.533
15	.711	.620	.479	-.084	-.206	-.575	-.309
16	.497	.657	.417	-.108	-.250	-.565	-.014
17	-.306	.673	.310	-.129	-.220	-.505	.146
18	-.658	-.486	-.026	-.161	-.107	-.292	-.230
19	-.835	-.657	-1.159	-.151	-.581	.992	-.120
20	-1.914	-.692	-2.147	-.578	-.655	1.004	-.305
21	-.055	-.941	-.295	-.606	-.645	.998	-.305
22	-.126	-2.461	-2.933	-.606	-.536	.965	-.305
23	-.098	-.020	-.299	-.594	-.030	.965	-.305
24	-.352	-.043	-.299	-.534	-.135	.891	-.305
25	-.489	-.575	-2.409	.120	-.054	.392	-.305
26	-.621	-.500	-.301	.120	-.393	-.294	-.305
				$\delta_e = 30°$			
1	-.030	.100	.343	.284	.077	-.053	-.188
2	.018	.191	.408	.306	.077	-.073	-.236
3	.034	.217	.461	.320	.075	-.079	-.287
4	.032	.217	.498	.320	.018	-.121	-.311
5	-.100	.209	.649	.296	-.040	-.142	-.325
6	-.241	.253	.990	.268	-.099	-.160	-.307
7	-.110	-.187	-.735	.133	-.067	-.174	-.228
8	-.149	-.271	-.729	-.559	-.462	-.184	-.499
9	-.125	-.327	-.933	-.618	-.524	-.081	-.555
10	-.110	-.135	-.986	-.624	-.538	-.490	-.601
11	-.353	-.594	-.843	-.624	-.528	-.492	-.575
12	-1.293	-1.612	-1.441	-.634	-.528	-.524	-.567
13	.442	.233	.375	-.680	-.514	-.528	-.545
14	.578	.400	.484	-.652	-.423	-.542	-.433
15	.627	.448	.416	-.201	-.282	-.524	-.305
16	.351	.448	.357	-.223	-.337	-.512	-.082
17	-.207	.500	.214	-.243	-.319	-.453	.020
18	-.408	-.375	-.049	-.272	-.214	-.223	-.180
19	-.606	-.478	-1.373	-.260	-.544	1.018	-.014
20	-1.496	-.580	-1.286	-.537	-.595	1.018	-.295
21	-.133	-.709	-.298	-.559	-.571	1.016	-.295
22	-.237	-1.042	-1.816	-.559	-.444	1.000	-.295
23	-.285	-.141	-.296	-.549	-.044	1.000	-.295
24	-.303	-.165	-.302	-.487	-.117	.951	-.295
25	-.404	-.510	-1.533	.072	-.151	.399	-.295
26	-.454	-.404	-.302	.139	-.329	-.298	-.295
				$\delta_e = 20°$			
1	.010	.040	.232	.132	-.050	-.160	-.276
2	.026	.078	.280	.152	-.040	-.184	-.327
3	.026	.097	.332	.156	-.054	-.194	-.387
4	.024	.097	.404	.148	-.110	-.238	-.419
5	-.063	.050	.732	.136	-.138	-.265	-.438
6	-.213	.089	.900	.112	-.214	-.275	-.438
7	.012	-.101	-.546	-.034	-.176	-.289	-.377
8	-.059	-.137	-.568	-.414	-.372	-.295	-.438
9	-.045	-.193	-.638	-.448	-.420	-.208	-.480
10	-.045	-.064	-.696	-.442	-.420	-.402	-.526
11	-.154	-.366	-.370	-.416	-.410	-.406	-.490
12	-.808	-.656	-.800	-.416	-.412	-.422	-.478
13	.287	.109	.236	-.428	-.394	-.424	-.435
14	.526	.231	.270	-.470	-.302	-.432	-.296
15	.561	.264	.244	-.296	-.382	-.418	-.294
16	.231	.252	.164	-.328	-.462	-.406	-.145
17	-.089	.274	-.060	-.348	-.458	-.345	-.071
18	-.245	-.268	-.090	-.376	-.378	-.105	-.151
19	-.368	-.328	-.776	-.362	-.454	1.014	.056
20	-.694	-.408	-.788	-.460	-.488	1.014	-.290
21	-.200	-.479	-.276	-.474	-.440	1.012	-.290
22	-.330	-.579	-1.208	-.478	-.280	1.012	-.290
23	-.439	-.219	-.278	-.456	-.104	1.012	-.290
24	-.237	-.235	-.278	-.408	-.060	.974	-.290
25	-.316	-.419	-.932	.032	-.270	.392	-.290
26	-.316	-.320	-.284	.146	-.224	-.273	-.290

TABLE 69 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

ψ=21°; δ_r=0°; α= 10°

Tube No.	Manometer Number 1	2	3	4	5	6	7
				δ_e= 10°			
1	.030	-.032	.101	-.048		-.279	-.359
2	.016	-.016	.171	-.040		-.306	-.415
3	.014	-.020	.278	-.046		-.316	-.490
4	.014	-.024	.429	-.060		-.356	-.528
5	-.048	-.094	.694	-.069		-.389	-.554
6	-.191	-.118	.567	-.129		-.403	-.558
7	.066	-.080	-.274	-.206		-.401	-.512
8	-.004	-.086	-.302	-.224		-.401	-.355
9	-.004	-.104	-.290	-.228		-.326	-.397
10	-.004	-.028	-.332	-.250		-.326	-.427
11	-.064	-.219	-.127	-.232		-.326	-.389
12	-.233	-.359	-.056	-.228		-.348	-.365
13	-.040	-.012	.040	-.248		-.348	-.321
14	.463	.052	.014	-.327		-.348	-.177
15	.493	.052	-.022	-.405		-.336	-.266
16	.028	.010	-.165	-.442		-.334	-.204
17	.024	-.010	-.378	-.462		-.273	-.181
18	-.137	-.169	-.070	-.486		-.030	-.087
19	-.187	-.231	-.384	-.468		.990	.157
20	-.060	-.263	-.408	-.359		.984	-.262
21	-.290	-.293	-.258	-.373		.984	-.262
22	-.457	-.313	-.588	-.365		1.004	-.262
23	-.660	-.343	-.266	-.353		.984	-.262
24	-.183	-.371	-.260	-.298		.943	-.262
25	-.225	-.321	-.471	.004		.358	-.262
26	-.143	-.225	-.258	.188		-.269	-.262
				δ_e= 0°			
1	.089	-.062	-.120	-.150	-.251	-.333	-.422
2	.069	-.076	-.133	-.152	-.251	-.366	-.474
3	.065	-.096	-.133	-.161	-.285	-.384	-.566
4	.055	-.106	-.133	-.163	-.321	-.424	-.608
5	-.037	-.181	-.112	-.159	-.345	-.448	-.638
6	-.205	-.307	.181	-.201	-.442	-.459	-.650
7	.093	-.068	-.050	-.319	-.424	-.453	-.624
8	.061	-.066	.004	-.124	-.183	-.453	-.284
9	.055	-.076	.122	-.130	-.207	-.382	-.316
10	.043	.000	.118	-.154	-.207	-.271	-.342
11	-.002	-.159	.616	-.138	-.213	-.271	-.300
12	-.215	-.201	.378	-.163	-.223	-.285	-.272
13	.014	-.112	-.096	-.197	-.197	-.295	-.226
14	.187	-.118	-.143	-.220	-.102	-.295	-.062
15	.240	-.143	-.161	-.484	-.550	-.289	-.244
16	-.177	-.177	-.209	-.524	-.685	-.283	-.238
17	.004	-.261	-.261	-.549	-.729	-.232	-.274
18	-.085	-.110	-.044	-.575	-.741	.006	-.038
19	-.154	-.086	-.106	-.561	-.295	.976	.230
20	.230	-.088	-.141	-.299	-.289	.970	-.244
21	-.346	-.120	-.241	-.301	-.205	.970	-.244
22	-.547	-.088	-.426	-.299	.024	1.000	-.244
23	-.817	-.416	-.243	-.287	-.203	.986	-.244
24	-.120	-.436	-.243	-.232	.028	.931	-.244
25	-.142	-.273	-.263	-.039	-.518	.339	-.244
26	-.010	-.175	-.239	.207	-.018	-.251	-.244
				δ_e=-10°			
1	.060	-.090	-.349	-.240	-.328	-.396	-.491
2	.054	-.126	-.351	-.288	-.358	-.429	-.546
3	.044	-.150	-.377	-.284	-.388	-.457	-.656
4	.022	-.162	-.377	-.304	-.416	-.493	-.699
5	-.076	-.265	-.292	-.312	-.437	-.525	-.747
6	-.572	-.563	-.498	-.331	-.553	-.533	-.772
7	.058	-.032	.317	-.450	-.551	-.523	-.762
8	.046	-.014	.395	.004	-.093	-.507	-.232
9	.036	-.016	.500	.032	-.103	-.463	-.259
10	.022	-.010	.470	.018	-.105	-.193	-.275
11	-.024	-.082	.819	.018	-.111	-.189	-.226
12	-.224	-.050	.764	-.006	-.125	-.195	-.198
13	-.014	-.174	-.425	-.044	-.109	-.207	-.141
14	.034	-.238	-.536	-.087	-.030	-.209	.029
15	-.104	-.305	-.528	-.546	-.624	-.199	-.261
16	-.486	-.341	-.609	-.601	-.777	-.203	-.291
17	.010	-.481	-.784	-.633	-.841	-.165	-.367
18	-.090	-.012	-.058	-.653	-.887	.066	.002
19	-.028	.072	.062	-.627	-.209	.938	.293
20	.344	.090	.058	-.212	-.179	.928	-.259
21	-.382	.084	-.254	-.220	-.109	.926	-.259
22	-.602	.152	-.266	-.210	.133	.976	-.259
23	-.914	-.489	-.252	-.196	-.239	.930	-.259
24	-.082	-.527	-.250	-.155	.074	.847	-.259
25	-.086	-.176	-.022	-.067	-.614	.300	-.259
26	.064	-.086	-.258	.230	.068	-.256	-.259

TABLE 69 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	-.077	-.132	-.562	-.360	-.419	-.464	-.547
2	-.091	-.157	-.574	-.483	-.437	-.500	-.614
3	-.093	-.215	-.693	-.446	-.494	-.522	-.739
4	-.115	-.244	-.745	-.459	-.514	-.575	-.792
5	-.192	-.478	-.528	-.471	-.534	-.603	-.851
6	-.893	-1.463	-1.247	-.562	-.672	-.605	-.891
7	-.083	.014	.349	-.685	-.686	-.603	-.909
8	.067	.063	.404	.174	.020	-.597	-.137
9	.091	.055	.468	.214	.020	-.577	-.158
10	.083	.010	.486	.210	.012	-.089	-.164
11	.042	.049	.831	.208	.002	-.085	-.109
12	-.099	.124	.986	.226	-.024	-.095	-.073
13	-.024	-.258	-.749	.149	-.022	-.109	-.008
14	-.087	-.327	-.896	.081	.034	-.105	.158
15	-.302	-.427	-.914	-.616	-.676	-.105	-.283
16	-1.048	-.547	-1.098	-.711	-.834	-.105	-.335
17	.198	-1.012	-1.430	-.725	-.905	-.077	-.485
18	.403	.091	-.072	-.749	-.978	.133	.057
19	.429	.252	.259	-.727	-.152	.871	.356
20	.337	.276	.291	-.099	-.113	.859	-.279
21	-.431	.287	-.279	-.105	-.040	.867	-.279
22	-.625	.376	.080	-.103	.215	.923	-.279
23	-.923	-.591	-.279	-.097	-.263	.863	-.279
24	-.008	-.661	-.279	-.044	.097	.732	-.279
25	.000	-.091	.239	-.113	-.706	.220	-.279
26	.202	-.010	-.279	.275	.138	-.288	-.279
				$\delta_e = -30°$			
1	-.106	-.231	-.603	-.392	-.436	-.498	
2	-.156	-.312	-.678	-.544	-.470	-.548	
3	-.130	-.358	-.862	-.560	-.552	-.576	
4	-.122	-.368	-1.027	-.578	-.590	-.620	
5	-.190	-.706	-1.058	-.629	-.620	-.663	
6	-1.457	-2.262	-1.907	-.817	-.769	-.685	
7	.012	.097	.467	-.853	-.821	-.673	
8	.032	.173	.533	.307	.141	-.669	
9	.048	.191	.605	.337	.153	-.693	
10	.062	.060	.640	.349	.129	.016	
11	-.008	.231	.764	.353	.112	.030	
12	-.214	.290	.996	.353	.080	.022	
13	-.084	-.278	-.884	.317	.054	-.006	
14	-.285	-.477	-1.374	.173	.086	.010	
15	-.333	-.535	-1.452	-.663	-.713	.010	
16	-1.561	-.757	-1.870	-.749	-.902	.000	
17	.491	-2.392	-1.213	-.781	-.996	.022	
18	.754	.235	-.006	-.803	-1.110	.207	
19	.820	.414	.397	-.777	-.070	.767	
20	.591	.467	.403	-.034	-.028	.753	
21	-.443	.517	-.291	-.040	.080	.739	
22	-.681	.575	.273	-.026	.323	.837	
23	-1.120	-.656	-.289	-.032	-.283	.763	
24	.042	-.765	-.289	.008	.133	.502	
25	.056	.014	.339	-.133	-.787	.124	
26	.259	.068	-.295	.265	.217	-.285	
				$\delta_e = -40°$			
1	-.216	-.442	-.711	-.244	-.373	-.458	-.535
2	-.411	-.522	-.577	-.197	-.347	-.490	-.596
3	-.494	-.606	-.892	-.092	-.343	-.506	-.711
4	-.554	-.695	-.803	-.023	-.308	-.524	-.764
5	-.304	-.735	-.776	.018	-.365	-.554	-.818
6	-.742	-.773	-.837	.006	-.532	-.569	-.859
7	-.050	.171	.541	-.193	-.613	-.554	-.881
8	-.091	.239	.577	.410	.236	-.554	-.018
9	-.105	.273	.626	.443	.256	-.599	-.046
10	-.105	-.129	.644	.457	.252	.079	-.046
11	-.093	.359	.709	.465	.214	.087	.000
12	-.065	.452	.931	.465	.188	.083	.030
13	-.246	-.428	-.986	.465	.167	.050	.089
14	-.504	-.442	-1.195	.359	.188	.071	.253
15	-.635	-.693	-.874	-.588	-.677	.063	-.293
16	-.728	-.709	-.754	-.656	-.891	.050	-.325
17	.415	-.845	-.787	-.678	-.974	.073	-.491
18	.740	.343	-.006	-.699	-1.113	.244	.119
19	.798	.552	.441	-.680	.020	.782	.408
20	.611	.604	.480	.027	.062	.760	-.301
21	-.417	.651	-.301	.018	.167	.742	-.301
22	-.647	.721	.447	.018	.413	.835	-.301
23	-1.044	-.488	-.297	.025	-.280	.760	-.301
24	.065	-.586	-.289	.051	.198	.504	-.301
25	.073	.076	.472	-.105	-.734	.155	-.301
26	.262	.122	-.299	.297	.296	-.306	-.301

TABLE 70

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.073	.232	.521	.448	.268	.181	.093
2	-.087	.330	.584	.479	.280	.181	.113
3	-.114	.361	.638	.505	.294	.190	.142
4	-.142	.375	.671	.515	.294	.200	.193
5	-.201	.471	.743	.521	.282	.214	.257
6	-.002	.568	.931	.524	.282	.216	.354
7	-.286	-.486	-.628	.440	.284	.218	.553
8	-.485	-.605	-.731	-.609	-.526	.246	-.733
9	-.590	-.695	-.919	-.440	-.538	.433	-.872
10	-.669	-.682	-.863	-.384	-.528	-.601	-.977
11	-.740	-.814	-.798	-.301	-.500	-.603	-1.035
12	-.734	-.818	-.814	-.237	-.577	-.647	-1.175
13	.412	.367	.465	-.256	-.903	-.659	-1.321
14	.629	.584	.564	-.622	-1.091	-.712	-1.465
15	.686	.635	.558	.141	.145	-.702	-.323
16	.562	.691	.513	.162	.254	-.730	.276
17	-.318	.775	.453	.178	.405	-.782	.588
18	-.625	-.480	-.044	.192	.673	-.982	-.599
19	-.708	-.541	-.873	.233	-.960	.218	-1.321
20	-.738	-.783	-.976	-.771	-1.181	.206	-.325
21	.193	-.791	-.315	-.845	-1.472	.026	-.325
22	.306	-.789	-.804	-.865	-1.770	-.206	-.325
23	.651	.244	-.317	-.904	.333	-.373	-.325
24	-.631	.301	-.317	-.926	-.560	-2.054	-.325
25	-1.077	-.732	-.814	.417	.524	-.153	-.325
26	-1.935	-.996	-.315	-.507	-1.103	-.304	-.325
				$\delta_e = 30°$			
1	-.004	.159	.448	.371	.200	.120	.051
2	.033	.255	.530	.396	.208	.120	.068
3	.045	.282	.599	.421	.224	.132	.108
4	.043	.290	.652	.421	.210	.144	.154
5	-.108	.318	.821	.421	.196	.146	.218
6	-.229	.394	1.002	.413	.196	.157	.319
7	-.094	-.198	-.525	.285	.196	.157	.529
8	-.167	-.292	-.670	-.519	-.493	.193	-.748
9	-.159	-.343	-.862	-.617	-.567	.378	-.913
10	-.184	-.214	-.963	-.671	-.651	-.606	-1.023
11	-1.063	-1.163	-1.218	-.725	-.705	-.665	-1.089
12	-1.673	-2.137	-2.248	-.802	-.812	-.699	-1.256
13	.467	.290	.442	-.938	-1.144	-.728	-1.393
14	.598	.451	.548	-1.169	-1.337	-.805	-1.550
15	.665	.512	.483	.106	.108	-.819	-.302
16	.451	.549	.420	.131	.220	-.864	.264
17	-.116	.629	.248	.150	.369	-.915	.586
18	-.467	-.245	-.012	.165	.645	-1.124	-.619
19	-.857	-.476	-1.094	.198	-.992	.187	-1.359
20	-1.780	-.573	-1.303	-.810	-1.218	.185	-.304
21	.190	-.878	-.299	-.902	-1.513	-.010	-.304
22	.318	-2.204	-2.265	-.967	-1.824	-.270	-.304
23	.678	.176	-.295	-.979	.297	-.455	-.304
24	-.663	.237	-.299	-1.027	-.579	-2.213	-.304
25	-1.247	-.894	-1.756	.394	.493	-.232	-.304
26	-2.094	-1.147	-.297	-.531	-1.192	-.291	-.304
				$\delta_e = 20°$			
1	.010	.077	.322	.210	.077	.021	-.032
2	.039	.123	.406	.237	.093	.027	-.008
3	.034	.137	.514	.261	.111	.039	.030
4	.020	.135	.612	.235	.109	.046	.070
5	-.114	.133	.873	.204	.105	.054	.140
6	-.284	.222	.996	.204	.134	.071	.248
7	-.014	-.109	-.449	.176	.174	.083	.462
8	-.061	-.194	-.539	-.420	-.427	.114	-.701
9	-.077	-.232	-.639	-.498	-.490	.344	-.811
10	-.110	-.156	-.688	-.520	-.540	-.562	-.953
11	-.740	-.776	-.898	-.539	-.595	-.614	-1.017
12	-1.162	-1.634	-1.469	-.567	-.696	-.641	-1.178
13	.357	.149	.314	-.627	-.992	-.670	-1.294
14	.550	.273	.341	-.888	-1.128	-.739	-1.439
15	.592	.311	.306	-.004	.036	-.745	-.278
16	.312	.321	.237	.016	.144	-.799	.212
17	-.067	.444	.016	.045	.298	-.846	.555
18	-.345	-.212	-.037	.067	.575	-1.008	-.572
19	-.582	-.319	-.704	.112	-.895	.311	-1.288
20	-1.286	-.457	-.882	-.727	-1.130	.295	-.288
21	.122	-.620	-.282	-.806	-1.393	.120	-.288
22	.239	-1.786	-1.445	-.849	-1.664	-.106	-.288
23	.592	.087	-.284	-.910	.291	-.243	-.288
24	-.604	.158	-.284	-.937	-.534	-1.836	-.288
25	-1.034	-.798	-1.173	.382	.429	-.100	-.288
26	-1.876	-1.012	-.282	-.471	-1.075	-.284	-.288

TABLE 70 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	.030	.004	.284	.039	-.051	-.082	-.113
2	.030	.016	.528	.039	-.039	-.082	-.102
3	.026	.016	.731	.033	-.028	-.082	-.077
4	.004	.006	.831	.025	-.022	-.070	-.031
5	-.050	-.016	.806	.025	-.014	-.070	.040
6	-.254	.060	.789	.025	.043	-.053	.150
7	.048	-.047	-.246	.050	.114	-.031	.365
8	-.020	-.105	-.313	-.244	-.329	.019	-.594
9	-.020	-.140	-.336	-.267	-.379	.272	-.692
10	-.044	-.094	-.355	-.308	-.416	-.444	-.831
11	-.256	-.398	-.453	-.320	-.471	-.463	-.915
12	-.831	-.768	-.841	-.343	-.574	-.531	-1.027
13	.006	.043	.117	-.386	-.815	-.549	-1.125
14	.508	.101	.088	-.669	-.909	-.603	-1.235
15	.518	.107	.008	-.085	-.049	-.617	-.258
16	.208	.097	-.134	-.060	.047	-.677	.163
17	.014	.222	-.357	-.037	.195	-.706	.519
18	-.196	-.121	-.042	-.014	.473	-.782	-.481
19	-.333	-.216	-.401	.045	-.777	.582	-1.075
20	-1.054	-.290	-.495	-.624	-1.034	.578	-.260
21	.032	-.370	-.261	-.690	-1.227	.467	-.260
22	.107	-.737	-.831	-.746	-1.436	.265	-.260
23	.421	-.029	-.257	-.812	.241	.140	-.260
24	-.478	.074	-.261	-.822	-.473	-.959	-.260
25	-.827	-.661	-.670	.372	.343	.134	-.260
26	-1.456	-.821	-.257	-.428	-.931	-.270	-.260
				$\delta_e = 0°$			
1	.057	-.035	-.088	-.104	-.146	-.167	-.179
2	.037	-.063	-.088	-.106	-.146	-.169	-.175
3	.022	-.084	.082	-.120	-.144	-.165	-.150
4	.004	-.110	.393	-.137	-.132	-.157	-.109
5	-.047	-.147	.549	-.153	-.111	-.155	-.047
6	-.215	-.108	.381	-.161	-.045	-.130	.051
7	.090	-.047	-.096	-.096	.056	-.101	.263
8	.033	-.059	-.117	-.141	-.233	-.048	-.527
9	.016	-.074	-.117	-.161	-.282	.223	-.613
10	-.004	-.051	-.125	-.173	-.305	-.401	-.737
11	-.108	-.221	-.109	-.178	-.360	-.417	-.833
12	-.339	-.446	-.238	-.178	-.457	-.452	-.905
13	-.027	-.057	-.053	-.229	-.656	-.477	-.988
14	.399	-.059	-.121	-.496	-.698	-.525	-1.068
15	.483	-.082	-.152	-.173	-.136	-.539	-.243
16	.045	-.123	-.387	-.155	-.066	-.610	.113
17	.070	-.020	-.582	-.137	.082	-.640	.469
18	-.086	-.090	-.035	-.110	.340	-.696	-.432
19	-.168	-.098	-.113	-.047	-.675	.647	-.934
20	-.243	-.129	-.139	-.531	-.901	.636	-.247
21	-.027	-.178	-.256	-.600	-1.041	.545	-.247
22	.059	-.403	-.328	-.671	-1.187	.368	-.247
23	.356	-.086	-.252	-.718	.198	.289	-.247
24	-.446	.033	-.252	-.716	-.389	-.748	-.247
25	-.793	-.577	-.244	.361	.253	.205	-.247
26	-1.382	-.730	-.244	-.353	-.772	-.246	-.247
				$\delta_e = -10°$			
1	.084	-.073	-.309	-.175	-.204	-.202	-.220
2	.071	-.115	-.336	-.187	-.204	-.204	-.220
3	.061	-.136	-.336	-.196	-.204	-.206	-.208
4	.047	-.146	-.336	-.196	-.185	-.194	-.167
5	-.045	-.215	-.062	-.196	-.161	-.190	-.118
6	-.196	-.285	-.098	-.196	-.103	-.172	-.016
7	.080	-.043	.124	-.151	.012	-.139	.182
8	.078	-.026	.112	-.039	-.167	-.087	-.433
9	.067	-.024	.205	-.045	-.206	.202	-.518
10	.067	.006	.245	-.067	-.232	-.307	-.641
11	.000	-.119	.492	-.077	-.284	-.323	-.724
12	-.208	-.241	.363	-.092	-.393	-.374	-.782
13	.008	-.160	-.355	-.161	-.579	-.402	-.849
14	.118	-.209	-.446	-.405	-.615	-.444	-.904
15	.188	-.257	-.442	-.206	-.165	-.461	-.255
16	-.102	-.283	-.515	-.185	-.083	-.529	.073
17	.024	-.241	-.564	-.157	.052	-.560	.424
18	-.065	-.051	-.062	-.136	.313	-.590	-.363
19	-.090	.038	-.008	-.065	-.635	.715	-.767
20	.096	.034	-.017	-.462	-.875	.717	-.255
21	-.018	-.004	-.266	-.548	-1.006	.624	-.255
22	.065	-.109	-.336	-.601	-1.145	.461	-.255
23	.355	-.144	-.261	-.642	.179	.384	-.255
24	-.416	-.030	-.263	-.640	-.389	-.493	-.255
25	-.751	-.504	-.166	.365	.220	.275	-.255
26	-1.341	-.638	-.266	-.330	-.730	-.261	-.255

TABLE 70 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 21°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	.037	-.085	-.564	-.307	-.287	-.286	-.275
2	.000	-.126	-.592	-.373	-.293	-.296	-.277
3	.014	-.150	-.633	-.344	-.299	-.296	-.261
4	.014	-.164	-.586	-.363	-.268	-.286	-.226
5	-.069	-.247	-.262	-.365	-.244	-.278	-.172
6	-.336	-.458	-.592	-.379	-.179	-.256	-.075
7	.039	-.004	.231	-.293	-.055	-.227	.133
8	.039	.037	.219	.086	-.055	-.168	-.377
9	.035	.037	.284	.107	-.093	.132	-.464
10	.026	-.016	.325	.098	-.116	-.235	-.571
11	-.006	-.037	.576	.086	-.171	-.260	-.658
12	-.196	-.037	.690	.076	-.280	-.298	-.714
13	-.073	-.231	-.665	.020	-.439	-.335	-.778
14	-.075	-.274	-.886	-.236	-.443	-.367	-.830
15	-.098	-.373	-.755	-.316	-.222	-.406	-.284
16	-.330	-.404	-.913	-.303	-.154	-.456	.056
17	.189	-.446	-1.274	-.285	-.033	-.493	.414
18	.328	.053	-.067	-.254	.228	-.493	-.327
19	.501	.191	.178	-.189	-.549	.795	-.696
20	.273	.207	.195	-.371	-.764	.795	-.288
21	-.090	.195	-.292	-.447	-.874	.720	-.288
22	-.033	.174	-.097	-.514	-.965	.578	-.288
23	.224	-.241	-.296	-.545	.163	.527	-.288
24	-.342	-.116	-.296	-.543	-.335	-.219	-.288
25	-.637	-.383	.105	.330	.138	.337	-.288
26	-1.102	-.475	-.296	-.244	-.598	-.302	-.288
				$\delta_e = -30°$			
1	-.086	-.158	-.652	-.394	-.357	-.336	-.333
2	-.127	-.244	-.686	-.473	-.373	-.351	-.343
3	-.086	-.246	-.832	-.453	-.387	-.357	-.343
4	-.084	-.228	-.818	-.455	-.359	-.351	-.308
5	-.127	-.394	-.764	-.492	-.329	-.346	-.256
6	-.881	-.798	-1.096	-.539	-.274	-.328	-.159
7	-.008	.051	.309	-.386	-.142	-.282	.025
8	.016	.125	.336	.224	.073	-.214	-.277
9	.025	.125	.381	.245	.028	.074	-.362
10	.037	.030	.424	.245	.008	-.134	-.475
11	.002	.117	.523	.235	-.041	-.155	-.527
12	-.184	.168	.785	.224	-.174	-.196	-.574
13	-.139	-.279	-.949	.173	-.312	-.235	-.636
14	-.191	-.408	-1.365	-.057	-.306	-.266	-.663
15	-.254	-.491	-1.268	-.345	-.294	-.295	-.306
16	-1.043	-.570	-1.586	-.345	-.243	-.363	.006
17	.395	-.709	-.855	-.329	-.136	-.398	.345
18	.643	.196	-.039	-.298	.101	-.379	-.252
19	.674	.347	.314	-.227	-.450	.868	-.510
20	.461	.372	.301	-.267	-.629	.872	-.298
21	-.121	.392	-.309	-.343	-.714	.819	-.298
22	-.088	.432	.127	-.412	-.757	.703	-.298
23	.148	-.289	-.309	-.441	.122	.658	-.298
24	-.275	-.162	-.309	-.441	-.268	.101	-.298
25	-.549	-.295	.203	.316	.053	.398	-.298
26	-.959	-.372	-.314	-.192	-.475	-.303	-.298
				$\delta_e = -40°$			
1	-.153	-.226	-.750	-.292	-.314	-.310	-.337
2	-.273	-.486	-.735	-.270	-.314	-.327	-.345
3	-.253	-.526	-1.036	-.252	-.325	-.327	-.345
4	-.187	-.547	-1.277	-.252	-.312	-.329	-.317
5	-.165	-.652	-1.255	-.254	-.296	-.327	-.270
6	-1.297	-1.758	-1.731	-.274	-.259	-.304	-.200
7	-.036	.128	.423	-.328	-.145	-.276	-.026
8	-.020	.215	.441	.308	.192	-.214	-.188
9	.012	.250	.497	.330	.135	.060	-.268
10	.046	.016	.543	.342	.118	-.016	-.381
11	.020	.266	.579	.342	.063	-.048	-.435
12	-.179	.335	.822	.332	-.078	-.091	-.474
13	-.139	-.350	-1.132	.298	-.200	-.133	-.520
14	-.464	-.530	-1.232	.121	-.200	-.151	-.534
15	-.446	-.677	-1.411	-.346	-.278	-.196	-.304
16	-1.446	-.927	-1.776	-.326	-.231	-.258	.002
17	.414	-1.258	-2.443	-.308	-.124	-.298	.333
18	.635	.329	.024	-.286	.096	-.272	-.202
19	.687	.488	.363	-.221	-.361	.907	-.440
20	.562	.533	.381	-.199	-.533	.905	-.296
21	-.120	.551	-.297	-.258	-.610	.865	-.296
22	-.092	.620	.230	-.346	-.645	.748	-.296
23	.118	-.281	-.301	-.378	.131	.708	-.296
24	-.211	-.191	-.297	-.386	-.222	.230	-.296
25	-.482	-.207	.295	.326	.055	.448	-.296
26	-.851	-.285	-.299	-.201	-.398	-.315	-.296

TABLE 71

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.235	.495	.297	.203	.154	.006	-.171
2	.080	.157	-.100	-.209	-.318	-.327	-.747
3	-.134	-.063	-.143	-.232	-.316	-.694	-.920
4	-.134	-.063	-.180	-.232	-.492	-.490	-.792
5	-.181	-.246	-.219	-.306	-.393	-.542	-1.094
6	-.282	-.314	-.094	-.319	-.234	-.698	-.965
7	-.165	-.305	-.708	-.128	-.215	-.649	-.743
8	-.230	-.519	-.585	-.304	-.035	-.472	.255
9	-.309	-.521	-.873	-.356	-.066	-.391	.302
10	-.311	-.322	-.963	-.478	-.076	.083	.380
11	-.319	-.417	-.638	-.482	-.049	.121	.480
12	-.348	-.373	-.644	-.437	-.025	.131	.565
13	.512	.415	.341	-.300	-.025	.113	.676
14	.086	.356	.159	-.133	-.078	.159	.782
15	.008	-.065	-.135	-.872	-1.084	.198	-.222
16	-.317	-.138	-.227	-.532	-.840	.216	-.475
17	-.251	-.257	-.155	-.776	-1.191	.234	-.984
18	-.436	-.373	.008	-.826	-1.449	.008	.590
19	-.418	-.489	-.822	-.675	.455	-.653	.351
20	-.348	-.676	-1.190	.244	.592	-.946	-.222
21	-.321	-.475	-.219	.282	.760	-1.359	-.222
22	-1.268	-.389	-.933	.323	.902	-1.819	-.220
23	-1.103	-.440	-.217	.368	-.906	-2.022	-.237
24	.486	-.299	-.217	.408	.652	-1.990	-.212
25	.695	.098	-1.137	-1.607	-.598	-.417	-.212
26	.879	.006	-.217	.472	.555	-.218	-.212
				$\delta_e = 30°$			
1	.269	.412	.305	.117	.026	-.027	-.249
2	.073	.054	-.161	-.270	-.391	-.380	-.854
3	-.051	-.128	-.181	-.295	-.373	-.771	-1.026
4	-.099	-.160	-.213	-.275	-.496	-.576	-.909
5	-.138	-.264	-.258	-.324	-.451	-.630	-1.117
6	-.257	-.272	-.130	-.334	-.320	-.729	-.957
7	.083	-.102	-.404	-.174	-.303	-.674	-.773
8	-.077	-.186	-.632	-.279	-.020	-.533	.259
9	-.065	-.268	-.699	-.422	-.059	-.459	.316
10	-.115	-.142	-.701	-.438	-.064	.114	.393
11	-.186	-.324	-.612	-.438	-.037	.157	.488
12	-.292	-.412	-.665	-.398	-.029	.153	.575
13	.506	.386	.299	-.330	-.043	.141	.674
14	.073	.268	.157	-.162	-.131	.182	.779
15	-.069	-.132	-.159	-.963	-1.170	.209	-.217
16	-.267	-.204	-.248	-.629	-.912	.238	-.553
17	-.142	-.236	-.220	-.857	-1.316	.248	-1.109
18	-.184	-.302	-.012	-.846	-1.436	-.017	.593
19	-.277	-.436	-.837	-.699	.461	-.674	.312
20	-.306	-.636	-1.112	.250	.600	-.940	-.215
21	-.364	-.670	-.205	.287	.760	-1.302	-.215
22	-1.393	-.436	-.823	.336	.887	-1.748	-.215
23	-1.227	-.518	-.201	.381	-.912	-2.143	-.245
24	.486	-.406	-.199	.426	.654	-2.143	-.211
25	.702	.098	-1.016	-1.668	-.639	-.483	-.211
26	.887	-.026	-.205	.463	.545	-.209	-.211
				$\delta_e = 20°$			
1	.255	.283	.346	.004	.030	-.106	-.321
2	.053	-.070	-.256	-.365	-.494	-.475	-.934
3	-.063	-.202	-.300	-.376	-.504	-.884	-1.127
4	-.147	-.234	-.316	-.333	-.600	-.694	-1.036
5	-.154	-.317	-.334	-.390	-.562	-.737	-1.141
6	-.287	-.224	-.199	-.418	-.434	-.816	-1.028
7	.176	-.058	-.038	-.287	-.404	-.773	-.882
8	.018	-.204	-.191	-.137	.062	-.635	.305
9	-.014	-.281	-.427	-.235	.030	-.545	.355
10	-.099	-.140	-.427	-.267	.026	.171	.426
11	-.168	-.331	-.292	-.255	.026	.214	.524
12	-.234	-.269	-.392	-.237	.024	.214	.602
13	.475	.323	.199	-.211	-.058	.202	.707
14	.059	.128	.097	-.129	-.180	.241	.801
15	-.141	-.228	-.268	-1.112	-1.318	.265	-.193
16	-.257	-.273	-.330	-.747	-1.082	.288	-.558
17	-.085	-.226	-.304	-.932	-1.460	.286	-1.223
18	-.206	-.158	.002	-.986	-1.630	-.041	.608
19	-.261	-.351	-.453	-.851	.516	-.786	.299
20	-.265	-.477	-.594	.309	.656	-1.075	-.191
21	-.434	-.533	-.191	.343	.804	-1.602	-.191
22	-1.543	-.295	-.487	.392	.912	-1.949	-.191
23	-1.404	-.645	-.185	.428	-1.026	-2.406	-.223
24	.507	-.517	-.189	.460	.674	-2.420	-.191
25	.713	.130	-.521	-1.827	-.736	-.559	-.191
26	.381	-.050	-.191	.450	.562	-.176	-.191

TABLE 71 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.243	.038	-.024	-.185	-.112	-.250	-.496
2	.028	-.251	-.580	-.556	-.709	-.660	-1.176
3	-.165	-.380	-.614	-.598	-.737	-1.158	-1.460
4	-.314	-.458	-.629	-.540	-.816	-.955	-1.368
5	-.133	-.460	-.560	-.580	-.798	-.990	-1.441
6	-.354	-.420	-.544	-.635	-.657	-1.064	-1.279
7	.250	.088	.934	-.544	-.625	-1.016	-1.123
8	.080	-.040	.974	.118	.204	-.883	.377
9	-.056	-.106	.966	.091	.202	-.785	.427
10	-.151	-.155	.936	.063	.200	.277	.510
11	-.205	-.155	.871	.059	.174	.322	.589
12	-.262	-.139	.396	.051	.116	.336	.664
13	.181	.068	-.283	.010	-.080	.313	.751
14	-.286	-.253	-.468	-.069	-.297	.357	.800
15	-.414	-.528	-.713	-1.420	-1.613	.369	-.190
16	-.378	-.512	-.629	-1.034	-1.391	.365	-.713
17	.523	-.476	-.596	-1.219	-1.756	.332	-1.545
18	.107	.100	.002	-1.237	-1.922	-.145	.626
19	-.145	.100	-.191	-1.093	.587	-1.125	.182
20	.543	.020	-.235	.422	.719	-1.479	-.196
21	-.588	-.022	-.177	.462	.844	-1.941	-.192
22	-1.879	-.032	-.287	.499	.894	-2.357	-.194
23	-1.897	-.853	-.183	.527	-1.162	-3.031	-.289
24	.581	-.733	-.179	.540	.687	-3.018	-.186
25	.781	.201	-.247	-2.170	-.956	-.787	-.188
26	.877	-.098	-.177	.420	.571	-.170	-.190
				$\delta_e = -20°$			
1	.018	-.144	-.453	-.517	-.290	-.447	-.701
2	-.170	-.451	-1.083	-.954	-.990	-.928	-1.526
3	-.391	-.644	-.872	-.954	-1.089	-1.581	-1.874
4	-.571	-.715	-.982	-.866	-1.177	-1.373	-1.848
5	-.236	-.741	-.923	-.912	-1.163	-1.417	-1.974
6	-.625	-.709	-.890	-1.002	-.990	-1.513	-1.760
7	.214	.344	.888	-.882	-.948	-1.451	-1.551
8	.082	.255	.843	.461	.398	-1.301	.512
9	-.040	.211	.819	.485	.427	-1.168	.575
10	-.120	-.138	.799	.459	.425	.437	.644
11	-.136	.144	.587	.439	.352	.489	.715
12	-.170	.049	.268	.397	.245	.505	.774
13	-.148	-.285	-1.073	.307	-.117	.465	.825
14	-.549	-.626	-.984	.030	-.479	.517	.815
15	-.719	-.812	-1.313	-1.838	-2.014	.515	-.220
16	-.651	-.836	-1.108	-1.421	-1.787	.485	-.972
17	.491	-.781	-1.000	-1.679	-2.439	.399	-2.016
18	.938	.356	.057	-1.663	-2.260	-.327	.697
19	.938	.543	.431	-1.477	.686	-1.727	.073
20	.405	.490	.463	.563	.795	-2.184	-.220
21	-.768	.417	-.203	.597	.887	-2.681	-.220
22	-2.301	.077	.309	.627	.837	-3.337	-.220
23	-2.565	-1.273	-.199	.627	-1.431	-4.156	-.236
24	.631	-1.077	-.199	.627	.710	-3.986	-.213
25	.826	.302	.388	-2.643	-1.322	-1.172	-.213
26	.814	-.182	-.201	.371	.549	-.220	-.213
				$\delta_e = -30°$			
1	-.154	-.246	-.800	-.657	-.347	-.507	-.759
2	-.320	-.556	-1.290	-1.024	-1.050	-.986	-1.599
3	-.536	-.696	-1.022	-1.024	-1.174	-1.633	-1.885
4	-.654	-.750	-1.073	-.924	-1.228	-1.456	-1.913
5	-.269	-.794	-.984	-.954	-1.222	-1.501	-1.978
6	-.664	-.778	-.917	-1.048	-1.058	-1.554	-1.747
7	.206	.460	.808	-.950	-1.018	-1.477	-1.577
8	.089	.395	.869	.569	.483	-1.331	.538
9	-.018	.365	.841	.581	.523	-1.193	.603
10	-.081	-.073	.839	.571	.509	.487	.666
11	-.083	.296	.659	.539	.415	.540	.737
12	-.109	.135	.288	.491	.289	.562	.787
13	-.225	-.381	-1.393	.371	-.140	.519	.830
14	-.682	-.720	-1.460	.040	-.541	.566	.802
15	-.802	-.835	-1.595	-1.902	-2.132	.556	-.231
16	-.709	-.877	-1.232	-1.509	-1.886	.519	-.994
17	.522	-.847	-1.101	-1.731	-2.521	.410	-2.071
18	.929	.460	.034	-1.689	-2.343	-.365	.688
19	.939	.690	.492	-1.527	.723	-1.759	.043
20	.421	.649	.546	.601	.818	-2.181	-.227
21	-.828	.581	-.226	.627	.894	-2.617	-.227
22	-2.399	.147	.401	.649	.794	-3.136	-.227
23	-2.783	-1.304	-.222	.647	-1.517	-4.310	-.259
24	.670	-1.147	-.222	.631	.709	-4.172	-.233
25	.856	.323	.470	-2.747	-1.407	-1.203	-.233
26	.802	-.200	-.224	.335	.535	-.227	-.233

TABLE 71 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.370	-.483	-1.097	-.490	-.406	-.535	-.746
2	-.584	-.821	-.887	-.618	-.914	-.943	-1.499
3	-.707	-.833	-.840	-.711	-.952	-1.384	-1.677
4	-.685	-.805	-.778	-.713	-.918	-1.232	-1.597
5	-.311	-.779	-.698	-.749	-.882	-1.215	-1.538
6	-.628	-.748	-.698	-.791	-.775	-1.215	-1.333
7	.202	.569	.733	-.723	-.747	-1.136	-1.221
8	.030	.519	.790	.645	.538	-1.043	.577
9	-.030	.495	.786	.667	.578	-.945	.634
10	-.020	-.020	.774	.645	.566	.526	.699
11	.020	.427	.650	.614	.460	.581	.757
12	-.014	.205	.362	.556	.323	.598	.800
13	-.465	-.622	-1.685	.428	-.080	.545	.830
14	-.790	-.751	-2.179	.096	-.424	.591	.812
15	-.679	-.823	-.835	-1.546	-1.920	.577	-.237
16	-.628	-.720	-.724	-1.267	-1.675	.533	-1.000
17	.515	-.706	-.704	-1.327	-1.964	.425	-1.922
18	.921	.547	-.008	-1.249	-1.711	-.291	.701
19	.919	.817	.424	-1.118	.733	-1.388	.108
20	.444	.785	.525	.622	.831	-1.717	-.245
21	-.802	.676	-.237	.645	.896	-2.051	-.241
22	-2.024	.131	.381	.665	.821	-2.518	-.241
23	-2.566	-1.042	-.241	.663	-1.699	-3.695	-.256
24	.671	-.867	-.243	.641	.711	-3.760	-.235
25	.865	.356	.444	-2.512	-1.018	-.933	-.233
26	.822	-.133	-.241	.376	.548	-.240	-.233

TABLE 72

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.080	.360	.206	.174	.129	.116	.027
2	-.012	.194	.299	.272	.057	.064	-.226
3	.022	.315	.326	.272	.185	-.161	-.313
4	.022	.416	.324	.272	.127	.023	-.383
5	-.035	.352	.501	.306	.014	-.031	-.658
6	-.012	.283	.523	.318	-.197	-.164	-.862
7	-.127	-.204	-.466	.197	-.366	-.261	-1.323
8	-.192	-.440	-.338	-.320	-.146	-.356	-.002
9	-.237	-.374	-.680	-.302	-.181	-.855	-.002
10	-.272	-.273	-.804	-.442	-.220	-.104	.051
11	-.209	-.412	-.971	-.446	-.222	-.085	.142
12	-.665	-.489	-1.261	-.398	-.195	-.087	.214
13	.307	.244	.204	-.351	-.133	-.089	.337
14	.483	.552	.305	-.205	-.164	-.075	.543
15	.732	.404	.303	-.203	-.669	-.050	-.179
16	.374	.719	.360	-.118	-.448	-.021	-.086
17	-.155	.590	.340	-.296	-.830	.035	-.693
18	-.307	-.208	.053	-.456	-1.544	.033	.321
19	-.401	-.374	-.576	-.560	.136	-.164	.471
20	-.556	-.416	-1.090	-.018	.253	-.197	-.171
21	-.018	-.501	-.173	.000	.417	-.265	-.169
22	-.767	-.586	-1.919	.034	.706	-.058	-.169
23	-1.413	-.170	-.173	.077	-.417	-.248	-.169
24	.221	-.406	-.171	.140	.392	-.913	-.169
25	.395	-.101	-1.747	-.594	-1.062	-.894	-.169
26	.697	-.077	-.177	.416	.382	-.176	-.169
				$\delta_e = 30°$			
1	.112	.233	.162	.160	.105	.046	-.053
2	.018	.113	.262	.220	-.024	-.019	-.310
3	.045	.225	.262	.218	.132	-.298	-.408
4	.024	.255	.262	.228	.006	-.104	-.486
5	-.014	.200	.467	.257	-.091	-.160	-.769
6	-.067	.176	.887	.242	-.314	-.290	-.982
7	-.024	-.067	-.473	.090	-.504	-.379	-1.476
8	-.075	-.174	-.412	-.318	-.150	-.469	.006
9	-.094	-.180	-.670	-.394	-.206	-1.035	.014
10	-.141	-.154	-.682	-.394	-.206	-.100	.071
11	-.075	-.204	-.516	-.396	-.186	-.096	.161
12	-.208	-.310	-.799	-.388	-.164	-.098	.243
13	.248	.229	.166	-.374	-.119	-.096	.369
14	.413	.427	.246	-.214	-.172	-.067	.569
15	.642	.306	.260	-.312	-.741	-.033	-.173
16	.248	.506	.314	-.220	-.545	-.015	-.153
17	-.090	.427	.238	-.411	-.943	.052	-.827
18	-.104	-.134	.016	-.559	-1.686	.002	.322
19	-.269	-.281	-.838	-.661	.150	-.356	.476
20	-.196	-.318	-.959	-.010	.259	-.410	-.169
21	-.077	-.427	-.162	.018	.441	-.469	-.169
22	-.896	-.484	-1.352	.055	.731	-.235	-.167
23	-1.517	-.308	-.170	.099	-.476	-.442	-.182
24	.224	-.496	-.168	.168	.401	-1.206	-.167
25	.407	-.067	-1.115	-.661	-1.172	-1.098	-.167
26	.713	-.069	-.170	.415	.399	-.183	-.167
				$\delta_e = 20°$			
1	.153	.143	.120	.108		-.012	-.144
2	.070	.047	.124	.069		-.089	-.405
3	.082	.131	.136	.122		-.419	-.547
4	.059	.139	.153	.134		-.202	-.615
5	-.004	.067	.464	.132		-.260	-.918
6	-.012	.041	.575	.071		-.381	-1.163
7	.135	-.029	-.297	-.101		-.456	-1.743
8	.047	-.078	-.155	-.225		-.538	.033
9	.025	-.065	-.503	-.280		-1.190	.070
10	.002	-.008	-.501	-.272		-.046	.111
11	.004	-.151	-.311	-.247		-.028	.204
12	-.082	-.200	-.423	-.227		-.028	.298
13	.294	.196	.097	-.221		-.028	.424
14	.329	.264	.111	-.152		-.004	.626
15	.591	.194	.124	-.479		.028	-.165
16	.168	.280	.157	-.318		.052	-.212
17	.045	.080	.004	-.519		.099	-.975
18	-.035	-.100	.004	-.680		.012	.354
19	-.098	-.294	-.452	-.781		-.530	.484
20	-.053	-.325	-.606	.045		-.619	-.158
21	-.147	-.360	-.173	.071		-.659	-.158
22	-1.125	-.297	-.788	.116		-.405	-.158
23	-1.575	-.387	-.167	.152		-.625	-.158
24	.262	-.654	-.171	.227		-1.427	-.158
25	.458	-.029	-.645	-.783		-1.274	-.158
26	.775	-.070	-.173	.404		-.149	-.158

TABLE 72 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.180	.027	-.049	-.022	-.087	-.144	-.262
2	.119	-.059	-.165	-.166	-.346	-.235	-.559
3	.119	-.025	-.134	-.093	-.217	-.738	-.744
4	.102	-.029	-.109	-.089	-.323	-.408	-.760
5	.014	-.258	-.303	-.132	-.411	-.452	-1.132
6	-.605	-.996	-.784	-.204	-.711	-.580	-1.441
7	.178	.041	.445	-.385	-1.171	-.657	-2.163
8	.121	-.008	.532	.040	.061	-.740	.148
9	.098	-.020	.668	.032	.053	-1.247	.179
10	.076	.055	.790	.012	.061	.071	.232
11	.047	-.057	.889	.012	.045	.091	.327
12	-.204	-.094	.439	.012	.010	.103	.417
13	.327	.082	-.099	-.043	-.091	.097	.539
14	.108	-.039	-.171	-.107	-.311	.128	.722
15	.123	-.094	-.181	-.735	-1.205	.150	-.144
16	-.881	-.149	-.243	-.506	-.852	.158	-.293
17	.166	-1.127	-.396	-.711	-1.333	.178	-1.246
18	-.045	.076	.029	-.885	-2.480	-.053	.409
19	-.094	.039	-.019	-.978	.293	-1.095	.459
20	.507	.012	-.076	.160	.429	-1.290	-.140
21	-.239	.002	-.146	.188	.608	-1.264	-.140
22	-1.479	-.057	-.293	.229	.864	-.935	-.140
23	-1.587	-.607	-.146	.255	-.774	-1.156	-.138
24	.329	-.928	-.134	.314	.459	-2.077	-.138
25	.538	.076	-.111	-.941	-1.734	-1.854	-.138
26	.838	-.080	-.142	.405	.512	-.150	-.138
				$\delta_e = -20°$			
1	.051	-.129	-.401	-.257	-.267	-.298	-.438
2	-.098	-.174	-.680	-.570	-.596	-.406	-.683
3	-.108	-.192	-.464	-.411	-.472	-1.053	-1.060
4	-.133	-.221	-.642	-.379	-.569	-.627	-.929
5	-.188	-.630	-.964	-.454	-.665	-.647	-1.409
6	-.955	-1.335	-2.253	-.674	-1.019	-.794	-1.811
7	.157	.204	.617	-1.242	-1.861	-.861	-2.232
8	.047	.186	.721	.352	.251	-.943	.280
9	.033	.174	.721	.383	.273	-1.457	.303
10	.031	.020	.692	.371	.273	.233	.388
11	-.078	.141	.733	.360	.224	.265	.479
12	-.225	.065	.642	.336	.145	.284	.558
13	-.090	-.231	-.725	.246	-.118	.265	.672
14	-.164	-.249	-.658	-.008	-.505	.300	.809
15	-.331	-.307	-.804	-1.204	-1.493	.306	-.176
16	-1.157	-.517	-1.034	-.745	-1.087	.296	-.376
17	.581	-1.720	-1.605	-.902	-1.600	.280	-1.641
18	.967	.313	.051	-1.112	-2.741	-.157	.473
19	.988	.446	.403	-1.228	.404	-1.786	.376
20	.479	.436	.439	.328	.536	-2.073	-.176
21	-.366	.384	-.172	.356	.702	-1.973	-.178
22	-1.955	.055	.249	.399	.907	-1.567	-.178
23	-1.781	-.861	-.170	.401	-1.033	-1.788	-.203
24	.417	-1.217	-.170	.448	.489	-2.788	-.176
25	.626	.200	.372	-1.208	-1.983	-2.588	-.176
26	.896	-.102	-.176	.395	.559	-.163	-.176
				$\delta_e = -30°$			
1	-.098	-.301	-.619	-.362	-.322	-.379	-.487
2	-.242	-.402	-.769	-.634	-.684	-.490	-.728
3	-.313	-.420	-.613	-.521	-.527	-1.161	-1.123
4	-.360	-.453	-.899	-.458	-.597	-.705	-.959
5	-.305	-.840	-.984	-.495	-.697	-.697	-1.440
6	-.807	-.998	-1.089	-.677	-1.187	-.835	-1.861
7	.167	.328	.649	-1.348	-2.079	-.910	-2.294
8	.035	.307	.777	.483	.352	-.987	.342
9	.000	.307	.793	.517	.381	-1.563	.378
10	-.018	-.018	.795	.515	.379	.316	.442
11	-.120	.293	.730	.481	.326	.349	.532
12	-.140	.199	.491	.444	.242	.374	.607
13	-.215	-.418	-1.079	.360	-.035	.343	.708
14	-.368	-.445	-1.258	.149	-.409	.387	.828
15	-.665	-.484	-1.193	-1.309	-1.621	.385	-.190
16	-.945	-.781	-1.325	-.824	-1.155	.372	-.399
17	.561	-1.037	-1.335	-.965	-1.646	.341	-1.716
18	.933	.424	.039	-1.180	-2.780	-.161	.501
19	.961	.602	.489	-1.286	.473	-2.146	.382
20	.506	.602	.546	.393	.599	-2.487	-.188
21	-.404	.602	-.185	.419	.760	-2.372	-.188
22	-2.073	.328	.420	.462	.925	-1.925	-.188
23	-1.843	-.818	-.189	.460	-1.193	-2.134	-.188
24	.445	-1.262	-.189	.501	.523	-3.111	-.188
25	.654	.248	.465	-1.288	-1.866	-2.874	-.188
26	.907	-.090	-.187	.387	.589	-.180	-.188

[redacted]

TABLE 72 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.295	-.380	-.986	-.274	-.360	-.380	-.506
2	-.514	-.659	-.645	-.288	-.642	-.481	-.810
3	-.614	-.652	-.633	-.198	-.340	-.958	-1.012
4	-.573	-.648	-.596	-.086	-.389	-.606	-.880
5	-.268	-.606	-.564	.029	-.532	-.537	-1.333
6	-.502	-.589	-.525	-.135	-.947	-.661	-1.727
7	.083	.443	.670	-.751	-.949	-.733	-2.124
8	-.028	.443	.760	.566	.427	-.822	.369
9	-.075	.441	.789	.609	.460	-1.333	.402
10	-.037	-.022	.787	.618	.464	.374	.463
11	.045	.480	.730	.618	.413	.408	.551
12	.043	.364	.582	.601	.328	.430	.627
13	-.323	-.555	-1.674	.513	.097	.396	.724
14	-.659	-.681	-1.883	.284	-.178	.438	.839
15	-.543	-.624	-.617	-1.084	-1.581	.438	-.214
16	-.496	-.559	-.559	-.714	-1.067	.428	-.396
17	.551	-.535	-.592	-.818	-1.514	.392	-1.680
18	.913	.539	-.004	-1.022	-2.636	-.016	.512
19	.951	.746	.488	-1.125	.504	-2.018	.398
20	.565	.760	.564	.436	.632	-2.358	-.212
21	-.415	.758	-.205	.466	.783	-2.273	-.212
22	-2.159	.480	.482	.497	.927	-1.863	-.208
23	-1.780	-.709	-.207	.507	-1.213	-2.077	-.229
24	.486	-1.183	-.207	.544	.528	-3.026	-.208
25	.693	.335	.520	-1.252	-1.646	-2.438	-.208
26	.927	.051	-.215	.403	.621	-.180	-.210

TABLE 73

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.041	.330	.476	.455	.253	.123	-.016
2	.008	.384	.572	.493	.263	.101	-.074
3	-.004	.394	.608	.511	.245	.085	-.167
4	-.006	.382	.614	.503	.189	.055	-.217
5	-.143	.388	.682	.489	.137	-.006	-.272
6	-.141	.350	.854	.463	.032	-.048	-.302
7	-.216	-.358	-.624	.311	.004	-.073	-.302
8	-.336	-.536	-.486	-.505	-.386	-.103	-.348
9	-.373	-.484	-.888	-.437	-.404	-.081	-.392
10	-.393	-.408	-1.072	-.455	-.430	-.394	-.416
11	-.668	-.782	-1.186	-.403	-.394	-.404	-.382
12	-.800	-1.010	-1.030	-.337	-.369	-.418	-.368
13	.540	.494	.466	-.291	-.315	-.426	-.326
14	.717	.654	.546	-.248	-.255	-.446	-.193
15	.745	.686	.576	-.026	-.145	-.430	-.151
16	.391	.700	.542	-.080	-.231	-.408	.002
17	-.224	.602	.448	-.118	-.255	-.337	.014
18	-.438	-.354	.040	-.166	-.215	-.152	-.028
19	-.576	-.454	-.758	-.194	-.375	.941	.221
20	-.853	-.642	-1.564	-.435	-.412	.954	-.151
21	.000	-.808	-.152	-.451	-.375	.954	-.159
22	-.114	-.928	-1.670	-.463	-.223	.954	-.159
23	-.287	-.034	-.156	-.427	.012	.943	-.159
24	-.145	-.080	-.156	-.387	.012	.958	-.159
25	-.167	-.386	-1.398	.064	-.171	.162	-.159
26	-.161	-.278	-.154	.196	-.221	-.152	-.161
				$\delta_e = 30°$			
1	.070	.239	.391	.349	.162	.038	-.070
2	.070	.270	.486	.375	.160	.006	-.137
3	.052	.284	.514	.392	.138	-.014	-.223
4	.050	.282	.514	.388	.090	-.042	-.274
5	-.032	.258	.653	.373	.024	-.106	-.330
6	-.149	.219	.994	.341	-.062	-.141	-.354
7	-.050	-.129	-.621	.189	-.082	-.177	-.346
8	-.117	-.209	-.476	-.460	-.353	-.201	-.354
9	-.165	-.241	-.889	-.554	-.415	-.181	-.400
10	-.175	-.183	-.950	-.554	-.445	-.367	-.439
11	-.229	-.435	-.776	-.556	-.431	-.376	-.406
12	-.954	-1.002	-1.284	-.556	-.407	-.404	-.390
13	.584	.376	.401	-.548	-.327	-.410	-.352
14	.680	.499	.472	-.460	-.259	-.438	-.225
15	.714	.531	.494	-.118	-.224	-.420	-.137
16	.332	.529	.448	-.175	-.333	-.398	-.020
17	-.101	.431	.319	-.219	-.375	-.325	.000
18	-.205	-.254	.032	-.269	-.367	-.131	-.046
19	-.435	-.378	-1.153	-.295	-.333	.928	.213
20	-1.356	-.435	-1.218	-.410	-.355	.938	-.131
21	-.048	-.604	-.137	-.426	-.307	.938	-.133
22	-.157	-.827	-1.702	-.446	-.124	.960	-.133
23	-.338	-.105	-.131	-.414	-.030	.950	-.135
24	-.159	-.151	-.135	-.365	.046	.926	-.135
25	-.187	-.406	-1.403	.010	-.269	.131	-.135
26	-.187	-.294	-.133	.213	-.170	-.145	-.135
				$\delta_e = 20°$			
1	.110	.141	.315	.208	.046	-.061	-.159
2	.084	.159	.361	.227	.038	-.097	-.228
3	.064	.157	.376	.227	.002	-.119	-.329
4	.048	.149	.376	.225	-.032	-.152	-.387
5	-.022	.114	.685	.209	-.097	-.220	-.444
6	-.132	.080	.968	.184	-.159	-.244	-.482
7	.078	-.032	-.450	.073	-.173	-.273	-.492
8	.008	-.060	-.369	-.350	-.292	-.277	-.304
9	-.028	-.108	-.645	-.405	-.338	-.251	-.343
10	-.046	-.056	-.639	-.387	-.350	-.335	-.367
11	-.070	-.241	-.428	-.374	-.332	-.337	-.325
12	-.535	-.450	-.683	-.358	-.316	-.354	-.306
13	.507	.243	.273	-.332	-.250	-.360	-.258
14	.621	.327	.311	-.296	-.183	-.382	-.109
15	.661	.345	.325	-.208	-.310	-.366	-.127
16	.226	.327	.289	-.277	-.431	-.347	-.077
17	-.040	.259	.143	-.328	-.491	-.283	-.089
18	-.114	-.209	-.002	-.372	-.517	-.099	-.002
19	-.232	-.315	-.633	-.387	-.288	.921	.262
20	-.371	-.341	-.755	-.324	-.296	.933	-.125
21	-.120	-.428	-.122	-.338	-.235	.933	-.123
22	-.273	-.468	-.984	-.342	-.028	.960	-.123
23	-.541	-.209	-.124	-.316	-.070	.935	-.123
24	-.120	-.235	-.125	-.263	.062	.903	-.123
25	-.110	-.321	-.829	-.020	-.390	.111	-.123
26	-.042	-.213	-.122	.243	-.095	-.133	-.123

TABLE 73 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.183	.018	-.063	-.070	-.157	-.230	-.304
2	.153	-.024	-.073	-.092	-.190	-.282	-.387
3	.143	-.042	-.091	-.104	-.246	-.319	-.512
4	.124	-.058	-.093	-.106	-.252	-.357	-.595
5	.034	-.123	-.101	-.106	-.296	-.401	-.669
6	-.131	-.235	.160	-.096	-.369	-.448	-.734
7	.179	.006	-.008	-.205	-.403	-.468	-.788
8	.143	-.018	.000	-.050	-.121	-.460	-.159
9	.129	-.028	-.012	-.064	-.137	-.482	-.183
10	.110	.089	-.057	-.076	-.143	-.167	-.194
11	.062	-.093	.828	-.078	-.153	-.159	-.149
12	-.124	-.115	.545	-.078	-.157	-.169	-.115
13	.149	-.012	-.061	-.116	-.131	-.183	-.054
14	.227	-.050	-.075	-.116	-.093	-.188	.113
15	.265	-.097	-.091	-.382	-.482	-.181	-.095
16	-.088	-.141	-.131	-.466	-.663	-.173	-.179
17	.137	-.207	-.172	-.528	-.756	-.125	-.298
18	-.036	-.016	.014	-.576	-.861	.020	.089
19	-.080	-.028	-.048	-.578	-.155	.778	.367
20	.468	-.038	-.077	-.171	-.135	.778	-.095
21	-.251	-.040	-.109	-.185	-.046	.778	-.095
22	-.464	-.014	-.271	-.175	.196	.857	-.095
23	-.902	-.386	-.109	-.163	-.171	.776	-.095
24	-.004	-.425	-.111	-.116	.125	.623	-.095
25	.044	-.183	-.129	-.100	-.619	-.046	-.095
26	.211	-.105	-.109	.287	.063	-.101	-.095
				$\delta_e = -20°$			
1	.028	-.091	-.360	-.238	-.272	-.349	-.435
2	-.012	-.115	-.294	-.414	-.344	-.417	-.526
3	-.024	-.143	-.613	-.378	-.434	-.471	-.644
4	-.052	-.191	-.646	-.394	-.436	-.521	-.783
5	-.114	-.416	-.595	-.422	-.468	-.561	-.872
6	-.928	-1.394	-1.285	-.461	-.580	-.599	-.964
7	.084	.099	.409	-.547	-.688	-.615	-1.063
8	.068	.119	.506	.232	.092	-.615	-.032
9	.060	.117	.528	.269	.104	-.705	-.045
10	.066	.050	.553	.277	.096	.000	-.045
11	.022	.099	.715	.275	.068	.020	.006
12	-.204	.082	.903	.275	.030	.012	.043
13	-.026	-.201	-.607	.222	-.008	-.010	.115
14	-.078	-.203	-.595	.055	-.040	.000	.279
15	-.172	-.320	-.844	-.543	-.586	-.002	-.136
16	-1.363	-.501	-1.026	-.606	-.830	-.012	-.271
17	.573	-1.139	-1.229	-.697	-.966	.008	-.510
18	.752	.207	-.012	-.754	-1.158	.080	.160
19	.916	.332	.322	-.758	.010	.549	.435
20	.513	.350	.362	-.004	.048	.543	-.132
21	-.357	.334	-.136	-.016	.158	.523	-.132
22	-.607	.264	.229	-.006	.414	.653	-.132
23	-1.214	-.594	-.140	-.002	-.234	.555	-.130
24	.110	-.648	-.138	.030	.212	.138	-.130
25	.188	-.002	.312	-.188	-.834	-.281	-.130
26	.411	-.002	-.138	.307	.212	-.138	-.130
				$\delta_e = -30°$			
1	-.116	-.193	-.442	-.235	-.308	-.387	-.446
2	-.189	-.303	-.433	-.380	-.375	-.456	-.550
3	-.228	-.335	-.651	-.362	-.477	-.511	-.667
4	-.301	-.386	-.768	-.388	-.503	-.564	-.821
5	-.189	-.552	-.927	-.451	-.540	-.609	-.938
6	-1.122	-1.783	-1.871	-.632	-.684	-.638	-1.034
7	.035	.185	.498	-.716	-.831	-.671	-1.163
8	.004	.217	.619	.376	.189	-.667	.052
9	.000	.231	.657	.421	.206	-.767	.052
10	-.004	.002	.675	.425	.189	.076	.052
11	-.022	.249	.720	.425	.153	.092	.102
12	-.183	.221	.813	.416	.106	.090	.141
13	-.116	-.227	-.653	.364	.031	.059	.213
14	-.266	-.347	-.875	.203	-.043	.074	.386
15	-.380	-.418	-1.004	-.596	-.650	.061	-.165
16	-1.427	-.540	-1.349	-.658	-.896	.043	-.293
17	.551	-1.950	-1.200	-.748	-1.071	.057	-.608
18	.892	.335	.050	-.823	-1.295	.088	.215
19	.945	.500	.435	-.837	.063	.495	.476
20	.559	.530	.494	.085	.110	.479	-.139
21	-.388	.540	-.151	.085	.224	.458	-.139
22	-.652	.414	.367	.085	.491	.591	-.139
23	-1.335	-.610	-.143	.085	-.263	.458	-.139
24	.150	-.725	-.143	.119	.228	-.033	-.139
25	.240	.074	.427	-.243	-.935	-.354	-.139
26	.478	.028	-.147	.338	.281	-.153	-.139

TABLE 73 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.353	-.486	-.778	-.200	-.309	-.361	-.458
2	-.406	-.458	-.440	.006	-.277	-.406	-.550
3	-.400	-.480	-.475	.112	-.245	-.432	-.653
4	-.429	-.508	-.448	.148	-.231	-.454	-.769
5	-.278	-.518	-.473	.172	-.247	-.470	-.896
6	-.539	-.496	-.541	.168	-.398	-.480	-.976
7	-.039	.274	.578	.054	-.608	-.482	-1.106
8	-.086	.319	.663	.461	.287	-.520	.104
9	-.073	.341	.695	.515	.321	-.655	.104
10	-.059	-.038	.709	.533	.307	.157	.114
11	-.014	.417	.709	.535	.275	.175	.169
12	-.031	.415	.747	.533	.229	.173	.205
13	-.278	-.470	-1.057	.493	.149	.139	.267
14	-.406	-.409	-.877	.371	.074	.165	.426
15	-.473	-.431	-.451	-.519	-.655	.159	-.165
16	-.543	-.464	-.463	-.551	-.861	.143	-.315
17	.502	-.494	-.483	-.619	-1.086	.153	-.669
18	.876	.438	-.030	-.685	-1.345	.169	.249
19	.933	.643	.461	-.693	.165	.450	.504
20	.616	.688	.566	.130	.219	.434	-.165
21	-.365	.722	-.168	.134	.341	.412	-.165
22	-.627	.637	.543	.142	.588	.552	-.165
23	-1.288	-.409	-.168	.138	-.287	.416	-.165
24	.180	-.567	-.168	.166	.295	-.114	-.165
25	.267	.151	.554	-.204	-.882	-.335	-.165
26	.492	.103	-.168	.345	.367	-.163	-.165

[redacted]

TABLE 74

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.068	.307	.544	.488	.292	.193	.124
2	-.049	.377	.639	.533	.325	.193	.136
3	-.086	.399	.681	.559	.323	.197	.159
4	-.094	.397	.702	.557	.280	.203	.198
5	-.207	.463	.754	.557	.253	.203	.255
6	-.016	.457	.837	.535	.195	.193	.344
7	-.428	-.503	-.591	.394	.119	.181	.513
8	-.414	-.565	-.587	-.547	-.508	.181	-.678
9	-.482	-.599	-.744	-.302	-.490	.230	-.784
10	-.518	-.547	-.679	-.224	-.451	-.598	-.908
11	-.557	-.645	-.639	-.141	-.412	-.620	-.951
12	-.576	-.629	-.639	-.078	-.438	-.642	-1.083
13	.502	.453	.480	-.059	-.646	-.642	-1.230
14	.713	.651	.522	-.273	-.881	-.695	-1.387
15	.756	.693	.639	.165	.161	-.673	-.134
16	.471	.725	.599	.176	.251	-.675	.273
17	-.352	.645	.514	.190	.391	-.693	.523
18	-.490	-.489	-.038	.190	.628	-.829	-.525
19	-.531	-.465	-.714	.224	-.872	.232	-.984
20	-.568	-.649	-.778	-.722	-1.091	.228	-.130
21	.217	-.601	-.135	-.794	-1.364	.077	-.130
22	.338	-.589	-.635	-.820	-1.638	-.167	-.130
23	.641	.192	-.139	-.845	.296	-.283	-.130
24	-.566	.156	-.139	-.849	-.479	-1.854	-.130
25	-.959	-.613	-.625	.357	.426	-.380	-.130
26	-1.777	-.770	-.135	-.463	-1.006	-.148	-.130
				$\delta_e = 30°$			
1	.027	.229	.464	.398	.196	.129	.080
2	.041	.276	.573	.428	.224	.129	.094
3	.027	.304	.633	.444	.220	.129	.118
4	.019	.306	.669	.438	.185	.129	.158
5	-.086	.306	.859	.426	.145	.129	.216
6	-.218	.269	.919	.398	.084	.121	.295
7	-.109	-.237	-.474	.189	.012	.117	.479
8	-.195	-.324	-.494	-.438	-.466	.115	-.709
9	-.244	-.322	-.821	-.590	-.544	.183	-.838
10	-.275	-.306	-.952	-.651	-.619	-.567	-.958
11	-.583	-.825	-1.135	-.701	-.668	-.607	-1.036
12	-1.536	-2.165	-2.407	-.745	-.717	-.663	-1.180
13	.556	.367	.462	-.819	-.917	-.681	-1.343
14	.684	.502	.486	-1.042	-1.128	-.770	-1.505
15	.727	.547	.542	.092	.114	-.770	-.128
16	.357	.567	.474	.100	.202	-.788	.253
17	-.127	.449	.290	.098	.336	-.804	.509
18	-.304	-.243	.018	.110	.589	-.897	-.553
19	-.671	-.353	-.869	.129	-.878	.310	-1.062
20	-1.663	-.482	-1.321	-.779	-1.116	.310	-.118
21	.191	-.759	-.115	-.859	-1.391	.171	-.118
22	.318	-2.382	-2.187	-.920	-1.676	-.050	-.118
23	.620	.108	-.115	-.938	.267	-.171	-.118
24	-.589	.076	-.119	-.970	-.485	-1.583	-.118
25	-1.004	-.784	-1.685	.321	.383	-.367	-.118
26	-1.842	-.927	-.117	-.456	-1.106	-.107	-.118
				$\delta_e = 20°$			
1	.040	.127	.347	.249	.089	.043	-.008
2	.054	.154	.428	.276	.105	.043	.002
3	.046	.168	.504	.290	.105	.043	.020
4	.034	.158	.570	.282	.079	.045	.048
5	-.083	.141	.908	.271	.057	.043	.098
6	-.316	.135	.924	.237	.030	.043	.186
7	-.026	-.127	-.456	.086	-.006	.043	.367
8	-.083	-.143	-.420	-.410	-.448	.055	-.655
9	-.072	-.208	-.655	-.506	-.511	.156	-.756
10	-.078	-.099	-.697	-.525	-.562	-.531	-.886
11	-.425	-.624	-.817	-.537	-.590	-.565	-.968
12	-1.223	-1.535	-1.504	-.537	-.644	-.624	-1.096
13	.543	.232	.311	-.559	-.808	-.634	-1.202
14	.676	.345	.329	-.724	-.947	-.715	-1.321
15	.694	.364	.347	.006	.048	-.705	-.102
16	.254	.360	.291	.020	.125	-.724	.196
17	-.062	.333	.094	.025	.267	-.742	.477
18	-.264	-.232	-.016	.035	.527	-.821	-.487
19	-.521	-.293	-.643	.067	-.840	.382	-.926
20	-1.320	-.453	-.938	-.694	-1.087	.386	-.100
21	.129	-.576	-.104	-.765	-1.333	.266	-.100
22	.235	-1.370	-1.388	-.808	-1.586	.043	-.100
23	.533	.048	-.106	-.880	.246	-.061	-.100
24	-.555	.024	-.110	-.880	-.473	-1.341	-.100
25	-.893	-.701	-1.145	.329	.315	-.281	-.100
26	-1.674	-.814	-.102	-.414	-1.034	-.089	-.100

TABLE 74 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.135	-.006	-.071	-.086	-.127	-.155	-.158
2	.094	-.044	-.095	-.086	-.125	-.165	-.158
3	.080	-.060	-.129	-.098	-.139	-.169	-.162
4	.062	-.074	-.129	-.098	-.139	-.169	-.139
5	.008	-.122	.770	-.104	-.129	-.171	-.103
6	-.157	-.131	.405	-.110	-.095	-.169	-.016
7	.157	-.034	-.081	-.096	-.050	-.151	.150
8	.114	-.040	-.101	-.125	-.235	-.111	-.461
9	.096	-.050	-.109	-.139	-.274	.065	-.547
10	.088	.054	-.117	-.151	-.294	-.375	-.657
11	.010	-.143	-.079	-.153	-.318	-.395	-.737
12	-.193	-.299	-.008	-.141	-.384	-.431	-.802
13	.042	-.034	-.058	-.155	-.489	-.442	-.863
14	.462	-.042	-.089	-.327	-.527	-.502	-.927
15	.552	-.068	-.103	-.179	-.105	-.514	-.083
16	.092	-.098	-.179	-.175	-.050	-.554	.099
17	.145	-.064	-.349	-.167	.074	-.548	.392
18	-.022	-.072	.000	-.155	.316	-.540	-.335
19	-.076	-.084	-.085	-.104	-.634	.708	-.608
20	-.082	-.094	-.101	-.500	-.869	.722	-.075
21	.018	-.122	-.071	-.564	-.998	.651	-.075
22	.104	-.233	-.190	-.622	-1.141	.484	-.075
23	.339	-.141	-.069	-.661	.171	.425	-.075
24	-.394	-.080	-.071	-.661	-.350	-.310	-.075
25	-.659	-.482	-.135	.303	.161	.008	-.075
26	-1.233	-.532	-.075	-.265	-.728	-.083	-.075
				$\delta_e = -20°$			
1	.061	-.080	-.501	-.307	-.296	-.284	-.274
2	.034	-.092	-.481	-.388	-.319	-.310	-.284
3	.004	-.142	-.624	-.353	-.341	-.322	-.296
4	.020	-.168	-.685	-.353	-.317	-.322	-.272
5	-.047	-.224	-.244	-.351	-.294	-.328	-.240
6	-.385	-.427	-.703	-.351	-.232	-.320	-.164
7	.081	.042	.267	-.255	-.159	-.294	-.002
8	.061	.078	.291	.122	-.056	-.248	-.332
9	.061	.074	.325	.157	-.069	-.050	-.394
10	.065	.076	.339	.159	-.071	-.208	-.504
11	.063	.034	.620	.157	-.115	-.222	-.552
12	-.138	.028	.885	.157	-.202	-.246	-.602
13	-.067	-.251	-.735	.100	-.286	-.260	-.658
14	-.079	-.287	-.792	-.058	-.288	-.310	-.680
15	-.061	-.345	-.810	-.307	-.250	-.358	-.106
16	-.389	-.435	-.950	-.307	-.218	-.378	.032
17	.398	-.455	-1.184	-.299	-.121	-.374	.330
18	.373	.126	-.040	-.281	.087	-.318	-.242
19	.511	.244	.240	-.219	-.480	.886	-.408
20	.430	.275	.267	-.325	-.663	.886	-.106
21	-.085	.283	-.101	-.396	-.748	.850	-.106
22	-.030	.265	.081	-.452	-.782	.732	-.106
23	.150	-.271	-.101	-.466	.113	.688	-.106
24	-.278	-.192	-.101	-.480	-.260	.240	-.106
25	-.509	-.293	.196	.287	-.016	.164	-.106
26	-.911	-.323	-.099	-.181	-.508	-.106	-.106
				$\delta_e = -30°$			
1	-.078	-.173	-.611	-.378	-.317	-.315	-.297
2	-.130	-.253	-.613	-.476	-.345	-.341	-.313
3	-.174	-.291	-.798	-.484	-.396	-.364	-.329
4	-.146	-.311	-.976	-.464	-.376	-.366	-.315
5	-.082	-.373	-.846	-.500	-.351	-.380	-.286
6	-1.038	-.833	-1.281	-.566	-.289	-.368	-.219
7	.024	.100	.370	-.382	-.217	-.339	-.067
8	.022	.153	.423	.257	.082	-.283	-.247
9	.034	.161	.460	.297	.062	-.077	-.321
10	.056	.046	.484	.311	.062	-.100	-.415
11	.066	.167	.623	.311	.010	-.108	-.464
12	-.126	.171	.947	.301	-.090	-.136	-.513
13	-.102	-.309	-.957	.263	-.165	-.150	-.566
14	-.234	-.406	-1.405	.135	-.165	-.191	-.577
15	-.220	-.450	-1.379	-.365	-.271	-.242	-.115
16	-1.270	-.608	-1.717	-.367	-.239	-.274	.022
17	.526	-.695	-.990	-.363	-.153	-.276	.323
18	.812	.261	-.006	-.349	.036	-.234	-.204
19	.846	.412	.385	-.289	-.386	.933	-.360
20	.546	.452	.385	-.231	-.542	.933	-.112
21	-.112	.472	-.115	-.313	-.624	.907	-.112
22	-.064	.450	.275	-.365	-.641	.817	-.112
23	.088	-.325	-.115	-.388	.102	.801	-.112
24	-.212	-.229	-.115	-.392	-.209	.465	-.112
25	-.414	-.227	.326	.275	-.054	.207	-.112
26	-.774	-.271	-.121	-.129	-.398	-.098	-.112

TABLE 74 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.190	-.358	-.748	-.257	-.315	-.297	-.293
2	-.311	-.485	-.471	-.194	-.299	-.315	-.315
3	-.353	-.456	-.934	-.138	-.309	-.329	-.329
4	-.387	-.589	-.942	-.086	-.293	-.329	-.313
5	-.251	-.769	-1.056	-.134	-.283	-.329	-.293
6	-.888	-1.247	-1.388	-.176	-.246	-.329	-.235
7	-.006	.182	.455	-.198	-.182	-.309	-.094
8	-.052	.250	.505	.359	.182	-.257	-.161
9	-.040	.272	.539	.409	.160	-.084	-.223
10	-.024	-.018	.557	.433	.158	-.004	-.317
11	-.026	.301	.634	.433	.101	-.018	-.355
12	-.130	.323	.857	.431	.000	-.042	-.404
13	-.208	-.417	-1.161	.403	-.097	-.076	-.442
14	-.385	-.415	-1.103	.271	-.109	-.104	-.442
15	-.591	-.706	-1.070	-.361	-.281	-.153	-.120
16	-1.102	-.779	-1.139	-.361	-.259	-.197	.014
17	.469	-1.186	-1.517	-.361	-.170	-.199	.297
18	.806	.384	.028	-.361	.016	-.155	-.135
19	.864	.566	.451	-.311	-.327	.946	-.237
20	.591	.611	.491	-.144	-.487	.948	-.116
21	-.132	.642	-.121	-.222	-.552	.932	-.116
22	-.102	.624	.410	-.269	-.562	.853	-.116
23	.012	-.290	-.119	-.293	.105	.829	-.116
24	-.148	-.213	-.117	-.293	-.174	.538	-.116
25	-.335	-.125	.457	.255	-.059	.225	-.116
26	-.613	-.166	-.123	-.064	-.354	-.122	-.116

TABLE 75

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	-.091	.320	.569	.523	.364	.315	.305
2	-.071	.418	.705	.580	.420	.345	.362
3	-.071	.445	.754	.610	.455	.378	.448
4	-.071	.455	.784	.620	.444	.404	.536
5	-.286	.547	.822	.620	.410	.426	.636
6	.075	.522	.788	.614	.321	.446	.763
7	-.450	-.547	-.840	.402	.139	.448	.920
8	-.540	-.731	-.603	-.683	-.586	.454	-.808
9	-.533	-.741	-.637	-.428	-.733	.333	-1.730
10	-.558	-.563	-.671	-.291	-.533	-.719	-1.204
11	-.590	-.692	-.647	-.287	-.622	-1.028	-1.243
12	-.590	-.682	-.639	-.404	-.826	-.944	-1.644
13	.462	.447	.503	-.657	-.980	-.737	-2.004
14	.728	.678	.503	-.869	-.996	-.823	-2.239
15	.779	.727	.657	.382	.446	-.894	-.119
16	.544	.769	.589	.432	.626	-.936	.524
17	-.444	.647	.495	.475	.814	-.990	.476
18	-.542	-.678	-.110	.509	.994	-1.339	-1.162
19	-.580	-.653	-.796	.554	-2.182	-2.118	-2.339
20	-.588	-.606	-.637	-1.038	-1.412	-2.139	-.123
21	.446	-.635	-.106	-.899	-2.040	-2.717	-.123
22	.655	-.635	-.637	-1.095	-3.065	-3.094	-.123
23	.955	.398	-.104	-1.184	.543	-3.243	-.123
24	-.730	.296	-.104	-1.283	-1.822	-5.187	-.123
25	-2.398	-.898	-.673	.422	.792	-2.006	-.123
26	-2.381	-1.080	-.106	-1.503	-1.723	-.104	-.123
				$\delta_e = 30°$			
1	.040	.222	.499	.432	.279	.246	.263
2	-.024	.280	.659	.473	.331	.269	.332
3	-.104	.292	.702	.490	.354	.305	.415
4	-.182	.284	.751	.481	.347	.335	.501
5	-.288	.346	.888	.467	.317	.357	.615
6	-.166	.350	.866	.453	.226	.371	.745
7	-.144	-.331	-.686	.259	.008	.383	.914
8	-.346	-.516	-.763	-.681	-.626	.387	-.878
9	-.500	-.630	-.925	-.751	-.931	.242	-1.851
10	-.686	-.706	-1.178	-.724	-.749	-.739	-1.322
11	-.978	-1.021	-1.187	-.735	-.848	-1.062	-1.342
12	-.948	-1.070	-1.260	-.774	-1.020	-1.042	-1.788
13	.508	.337	.473	-.909	-1.663	-.854	-2.191
14	.704	.525	.485	-1.481	-1.794	-1.002	-2.466
15	.728	.566	.572	.323	.420	-1.086	-.110
16	.408	.593	.513	.381	.598	-1.162	.509
17	-.308	.523	.379	.426	.798	-1.255	.428
18	-.692	-.527	-.112	.469	.982	-1.812	-1.165
19	-1.032	-.576	-1.191	.519	-2.404	-2.178	-2.397
20	-.954	-.724	-1.361	-1.181	-1.537	-2.158	-.104
21	.440	-.951	-.099	-1.056	-2.212	-2.697	-.104
22	.656	-1.066	-1.588	-1.280	-3.297	-3.080	-.104
23	.970	.344	-.101	-1.414	.533	-3.255	-.104
24	-.758	.230	-.103	-1.512	-1.947	-5.355	-.104
25	-2.570	-1.140	-1.542	.409	.776	-2.423	-.104
26	-2.544	-1.654	-.097	-1.597	-1.978	-.108	-.104
				$\delta_e = 20°$			
1	.000	.115	.399	.304	.173	.170	.220
2	-.051	.163	.530	.338	.216	.194	.268
3	-.075	.187	.623	.336	.250	.233	.354
4	-.069	.187	.742	.334	.248	.261	.442
5	-.229	.189	.988	.320	.222	.285	.560
6	-.355	.193	.859	.304	.133	.008	.696
7	-.110	-.221	-.480	.149	-.121	.326	.876
8	-.258	-.340	-.518	-.511	-.516	.336	-.780
9	-.300	-.364	-.589	-.547	-.742	.221	-1.622
10	-.300	-.274	-.714	-.539	-.657	-.662	-1.160
11	-.982	-1.286	-1.478	-.636	-.819	-.947	-1.216
12	-1.606	-1.875	-2.385	-.783	-.976	-.895	-1.656
13	.531	.213	.337	-1.004	-1.565	-.771	-2.054
14	.657	.360	.367	-2.147	-1.984	-.931	-2.388
15	.704	.396	.395	.262	.357	-1.032	-.090
16	.292	.417	.298	.320	.544	-1.128	.482
17	-.213	.364	.073	.364	.750	-1.261	.458
18	-.379	-.354	-.071	.416	.972	-1.877	-1.110
19	-.901	-.370	-.754	.473	-2.149	-1.964	-2.238
20	-1.643	-.417	-.917	-1.034	-1.431	-1.945	-.088
21	.377	-.861	-.107	-.950	-2.099	-2.429	-.088
22	.613	-2.042	-2.347	-1.183	-3.220	-2.800	-.088
23	.947	.262	-.107	-1.372	.496	-2.937	-.088
24	-.759	.163	-.107	-1.457	-1.724	-5.002	-.088
25	-2.406	-1.101	-1.552	.412	.742	-2.289	-.088
26	-2.483	-1.650	-.111	-1.505	-1.931	-.095	-.088

TABLE 75 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.029	-.055	.191	-.088	-.065	-.029	.043
2	-.013	-.071	.531	-.070	-.026	-.004	.099
3	-.011	-.084	.830	-.086	.000	.027	.173
4	-.029	-.105	.882	-.086	.030	.057	.268
5	-.122	-.143	.680	-.086	.051	.084	.379
6	-.376	-.076	.461	-.062	.067	.120	.534
7	.029	-.101	-.197	-.010	-.034	.155	.765
8	-.038	-.122	-.226	-.253	-.340	.210	-.695
9	-.017	-.126	-.199	-.240	-.464	.241	-1.194
10	-.036	-.061	-.222	-.236	-.411	-.510	-.984
11	-.391	-.414	-.485	-.263	-.538	-.659	-1.132
12	-.733	-1.092	-1.228	-.304	-.672	-.684	-1.441
13	-.021	-.048	-.095	-.402	-1.152	-.586	-1.724
14	.647	-.048	-.160	-.922	-1.431	-.751	-2.431
15	.641	-.067	-.274	.072	.237	-.829	-.080
16	.097	-.092	-.471	.136	.421	-.908	.373
17	.116	.027	-.651	.181	.634	-1.022	.503
18	-.145	-.120	-.083	.234	.909	-1.820	-.994
19	-.326	-.185	-.249	.318	-1.733	-1.173	-2.010
20	-.840	-.206	-.293	-.815	-1.168	-1.149	-.076
21	.277	-.319	-.085	-.791	-1.814	-1.590	-.076
22	.506	-1.290	-.714	-.975	-2.974	-1.957	-.076
23	.897	.109	-.081	-1.092	.474	-2.127	-.093
24	-.716	.128	-.083	-1.187	-1.429	-4.135	-.072
25	-1.979	-.847	-.504	.413	.660	-1.537	-.072
26	-2.149	-1.252	-.083	-1.238	-1.856	-.088	-.074
				$\delta_e = -20°$			
1	.018	-.150	-.498	-.314	-.214	-.134	-.054
2	.018	-.156	-.451	-.346	-.181	-.112	.004
3	.004	-.191	-.602	-.324	-.155	-.084	.093
4	.020	-.209	-.631	-.311	-.103	-.054	.173
5	-.075	-.263	-.148	-.301	-.060	-.018	.288
6	-.198	-.292	-.447	-.266	.034		.441
7	.035	-.060	-.002	-.129	-.016	.074	.684
8	.026	-.031	.027	-.090	-.188	.144	-.575
9	.026	-.033	.143	-.064	-.248	.248	-.944
10	.045	.010	.215	-.025	-.238	-.369	-.809
11	.031	-.033	.307	-.027	-.343	-.471	-.958
12	-.147	-.242	-.494	-.064	-.464	-.473	-1.243
13	-.106	-.363	-.715	-.217	-.851	-.425	-1.459
14	-.094	-.380	-.684	-.676	-1.153	-.565	-2.040
15	-.075	-.431	-.773	-.025	.145	-.649	-.091
16	-.055	-.478	-.914	.041	.345	-.729	.328
17	.377	-.341	-.947	.088	.554	-.838	.515
18	.263	.033	-.088	.148	.825	-1.523	-.857
19	.273	.004	-.023	.150	-1.417	-.804	-1.779
20	-.096	.150	.039	-.615	-.966	-.782	-.093
21	.204	.138	-.088	-.617	-1.563	-1.148	-.093
22	.415	-.300	-.367	-.789	-2.472	-1.481	-.093
23	.833	.012	-.086	-.922	.421	-1.677	-.093
24	-.648	.072	-.082	-.994	-1.115	-3.505	-.093
25	-1.695	-.671	-.025	.416	.607	-1.184	-.093
26	-1.919	-.986	-.092	-1.119	-1.647	-.088	-.093
				$\delta_e = -30°$			
1	-.146	-.234	-.628	-.415	-.415	-.274	-.093
2	-.164	-.261	-.733	-.484	-.487	-.260	-.043
3	-.134	-.269	-.800	-.484	-.483	-.256	.030
4	-.083	-.244	-.868	-.451	-.456	-.197	.130
5	-.089	-.279	-.725	-.449	-.452	-.138	.241
6	-.258	-.372	-.889	-.429	-.431	-.020	.396
7	-.047	.026	.111	-.205	-.202	.002	.647
8	-.022	.059	.121	.010	.008	-.108	-.511
9	-.006	.075	.225	.045	.037	-.152	-.842
10	.012	.002	.291	.100	.094	-.118	-.698
11	.057	.081	.312	.110	.102	-.223	-.864
12	-.128	-.006	-.209	.077	.074	-.347	-1.126
13	-.150	-.440	-.984	-.045	-.041	-.690	-1.339
14	-.221	-.438	-1.221	-.380	-.376	-1.081	-1.886
15	-.158	-.509	-1.391	-.085	-.088	.091	-.108
16	-.316	-.586	-1.676	-.026	-.027	.262	.310
17	.310	-.483	-.862	.026	.020	.487	.513
18	.651	.115	-.081	.081	.080	.797	-.793
19	.690	.121	.097	.177	.176	-1.276	-1.677
20	.189	.364	.196	-.510	-.515	-.882	-.105
21	.176	.356	-.101	-.537	-.534	-1.434	-.110
22	.389	.057	-.123	-.705	-.712	-2.247	-.105
23	.799	-.036	-.103	-.833	-.836	.404	-.120
24	-.609	.071	-.099	-.907	-.904	-1.000	-.108
25	-1.578	-.533	.117	.421	.417	.554	-.105
26	-1.856	-.869	-.097	-1.071	-1.072	-1.450	-.108

[redacted]

TABLE 75 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 9°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.220	-.306	-.566	-.329	-.258	-.185	-.085
2	-.311	-.526	-.711	-.294	-.237	-.175	-.041
3	-.345	-.534	-1.093	-.233	-.233	-.151	.028
4	-.279	-.585	-1.358	-.204	-.182	-.129	.118
5	-.122	-.518	-1.160	-.188	-.149	-.103	.227
6	-.754	-.650	-1.309	-.233	-.035	-.069	.373
7	-.102	.079	.212	-.192	-.002	-.022	.621
8	-.092	.136	.182	.094	-.025	.054	-.426
9	-.080	.170	.293	.108	-.059	.244	-.684
10	-.006	-.016	.366	.190	-.010	-.200	-.568
11	.044	.196	.404	.214	-.112	-.230	-.742
12	-.162	.202	.095	.208	-.229	-.264	-.994
13	-.190	-.411	-.994	.127	-.566	-.232	-1.189
14	-.481	-.605	-.863	-.182	-.963	-.361	-1.680
15	-.431	-.680	-1.636	-.078	.074	-.435	-.103
16	-.737	-.881	-1.982	-.029	.241	-.516	.304
17	.244	-.723	-2.459	.022	.446	-.615	.523
18	.641	.200	-.059	.078	.765	-1.026	-.690
19	.681	.209	.099	.176	-1.143	-.240	-1.538
20	.439	.514	.259	-.408	-.783	-.238	-.103
21	.166	.540	-.099	-.427	-1.311	-.536	-.099
22	.373	.413	.095	-.604	-2.045	-.881	-.095
23	.778	-.051	-.097	-.737	.409	-1.115	-.099
24	-.533	.069	-.101	-.810	-.885	-2.790	-.099
25	-1.425	-.441	.224	.422	.530	-.663	-.093
26	-1.762	-.767	-.101	-1.012	-1.321	-.097	-.093

TABLE 76

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.153	.594	.317	.266	.156	.076	-.008
2	-.044	.265	.359	.207	.104	.065	-.126
3	-.044	.269	.254	.107	-.114	-.172	-.769
4	-.013	.150	.148	.063	-.094	-.422	-.480
5	-.176	.104	.042	.046	-.015	-.237	-.472
6	-.080	-.108	-.066	-.063	-.195	-.227	-.845
7	-.270	-.333	-.731	-.212	-.391	-.170	-1.499
8	-.287	-.658	-.510	-.262	-.037	-.134	.229
9	-.404	-.592	-.863	-.315	-.054	-.861	.302
10	-.364	-.381	-.903	-.463	-.114	.092	.325
11	-.326	-.379	-.649	-.449	-.091	.139	.400
12	-.368	-.394	-.681	-.403	-.073	.124	.484
13	.889	.346	.239	-.275	-.100	.088	.593
14	.483	.396	.287	-.109	-.173	.116	.706
15	.224	.388	.224	-.375	-.216	.137	-.176
16	.006	.192	.046	-.358	-.593	.158	-.073
17	-.381	-.244	.040	-.346	-.688	.164	-.476
18	-.510	-.548	.070	-.319	-1.755	-.261	.331
19	-.356	-.592	-.734	-.317	.435	-1.872	.493
20	-.366	-.646	-1.194	.224	.509	-2.162	-.176
21	-.011	-.437	-.159	.239	.649	-1.931	-.172
22	-.362	-.402	-1.049	.275	.813	-1.393	-.174
23	-.745	-.081	-.157	.314	-.060	-1.143	-.176
24	.318	-.202	-.159	.354	.227	-1.177	-.172
25	.644	.021	-1.156	-.086	-1.096	-2.177	-.172
26	.822	-.144	-.161	.138	.422	-.160	-.170
				$\delta_e = 30°$			
1	.207	.430	.308	.217	.104	.006	-.060
2	.036	.193	.398	.110	.023	-.015	-.192
3	.063	.184	.192	-.031	-.269	-.274	-.903
4	.027	.046	.025	-.029	-.184	-.565	-.574
5	-.115	.038	-.029	-.019	-.102	-.343	-.566
6	-.059	-.138	-.132	-.085	-.330	-.328	-.975
7	.050	-.140	-.391	-.287	-.553	-.270	-1.655
8	-.099	-.249	-.613	-.240	.002	-.233	.236
9	-.092	-.193	-.705	-.390	-.031	-1.029	.310
10	-.067	-.086	-.684	-.409	-.067	.110	.343
11	-.122	-.193	-.559	-.415	-.056	.164	.417
12	-.147	-.245	-.659	-.376	-.058	.143	.492
13	.834	.337	.238	-.322	-.111	.112	.599
14	.482	.365	.284	-.141	-.228	.145	.709
15	.205	.283	.188	-.574	-.322	.164	-.161
16	-.008	.113	.019	-.459	-.775	.179	-.109
17	-.228	-.222	-.040	-.448	-.797	.170	-.554
18	-.262	-.361	.004	-.409	-1.965	-.345	.331
19	-.214	-.447	-.866	-.413	.468	-2.206	.452
20	-.252	-.553	-1.119	.238	.551	-2.555	-.163
21	-.063	-.478	-.161	.250	.691	-2.287	-.165
22	-.474	-.380	-.837	.289	.816	-1.690	-.165
23	-.864	-.212	-.157	.329	-.123	-1.412	-.178
24	.335	-.277	-.155	.360	.296	-1.422	-.151
25	.656	.054	-1.002	-.233	-1.236	-2.528	-.161
26	.834	-.147	-.163	.178	.432	-.158	-.161
				$\delta_e = 20°$			
1	.248	.274	.303	.118	.013	-.077	-.133
2	.071	.077	.410	-.037	-.097	-.106	-.335
3	.098	.066	.109	-.205	-.429	-.470	-1.176
4	.033	-.091	-.109	-.139	-.288	-.750	-.754
5	-.092	-.091	-.109	-.116	-.204	-.491	-.720
6	-.138	-.224	-.192	-.129	-.464	-.468	-1.118
7	.169	-.052	-.002	-.415	-.990	-.403	-1.909
8	.023	-.141	-.033	-.069	.074	-.349	.298
9	.060	-.177	-.437	-.208	.061	-1.207	.369
10	.027	-.004	-.435	-.228	.023	.167	.402
11	-.094	-.198	-.320	-.218	.011	.225	.474
12	-.115	-.171	-.362	-.205	-.015	.209	.549
13	.756	.339	.188	-.185	-.164	.169	.646
14	.453	.212	.188	-.122	-.351	.198	.731
15	.050	.116	-.011	-.747	-.510	.215	-.149
16	-.161	-.052	-.086	-.604	-.971	.219	-.203
17	-.083	-.279	-.115	-.598	-.952	.190	-.708
18	-.148	-.150	.015	-.533	-2.254	-.445	.418
19	-.200	-.320	-.389	-.546	.515	-2.666	.420
20	-.165	-.405	-.602	.295	.595	-3.073	-.153
21	-.142	-.428	-.142	.303	.723	-2.785	-.147
22	-.685	-.256	-.471	.349	.813	-2.148	-.141
23	-1.096	-.295	-.144	.375	-.225	-1.833	-.155
24	.417	-.395	-.136	.405	.363	-1.787	-.147
25	.708	.075	-.523	-.369	-1.450	-3.012	-.153
26	.839	-.247	-.136	.187	.429	-.150	-.149

TABLE 76 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.227	.025	-.114	-.067	-.149	-.200	-.265
2	.108	-.112	-.243	-.315	-.340	-.284	-.544
3	.087	-.205	-.418	-.656	-.788	-.839	-1.623
4	-.067	-.429	-.738	-.483	-.560	-1.104	-1.085
5	-.081	-.398	-.518	-.416	-.465	-.800	-1.064
6	-.262	-.384	-.701	-.544	-.761	-.791	-1.348
7	.270	.139	.911	-.758	-2.386	-.676	-2.321
8	.123	.033	.958	.191	.220	-.616	.385
9	.104	-.014	.927	.130	.237	-1.411	.460
10	.029	.000	.873	.090	.205	.286	.501
11	-.123	-.116	.776	.071	.143	.347	.571
12	-.193	-.114	.287	.042	.052	.340	.636
13	.116	.039	-.256	-.023	-.286	.301	.700
14	.141	-.154	-.306	-.128	-.701	.328	.725
15	-.393	-.361	-.763	-1.334	-.851	.330	-.135
16	-.308	-.500	-.630	-.985	-1.378	.311	-.346
17	.516	-.525	-.620	-1.040	-1.332	.225	-.969
18	-.112	.091	.019	-1.258	-2.759	-.704	.480
19	-.164	.164	-.158	-1.252	.591	-3.674	.315
20	.642	.075	-.218	.426	.680	-4.184	-.141
21	-.254	-.008	-.133	.441	.786	-3.818	-.139
22	-1.129	-.116	-.274	.466	.778	-3.048	-.141
23	-1.520	-.589	-.139	.471	-.446	-2.635	-.141
24	.501	-.693	-.135	.483	.463	-2.459	-.135
25	.763	.127	-.229	-1.004	-1.861	-4.092	-.088
26	.836	-.415	-.143	.265	.413	-.134	-.189
				$\delta_e = -20°$			
1	-.033	-.105	-.504	-.390	-.322	-.358	-.387
2	-.078	-.240	-.953	-.784	-.608	-.515	-.871
3	-.198	-.436	-.869	-1.301	-1.136	-1.229	-2.100
4	-.479	-.705	-1.322	-.888	-.889	-1.579	-1.540
5	-.184	-.771	-1.076	-.772	-.779	-1.209	-1.542
6	-.599	-.812	-1.711	-1.127	-1.117	-1.221	-1.656
7	.281	.417	.908	-1.317	-4.895	-1.094	-2.742
8	.124	.298	.879	.486	.394	-1.002	.472
9	.064	.246	.791	.485	.443	-1.900	.581
10	-.039	-.052	.816	.452	.402	.407	.613
11	-.180	.120	.523	.409	.283	.493	.663
12	-.200	.000	.111	.353	.124	.487	.708
13	-.097	-.244	-1.002	.228	-.507	.429	.746
14	-.343	-.450	-.934	-.106	-1.264	.464	.679
15	-.702	-.752	-2.023	-1.871	-1.194	.442	-.170
16	-.676	-.884	-1.348	-1.446	-1.707	.384	-.562
17	.403	-1.140	-1.469	-1.569	-1.771	.233	-1.325
18	.963	.304	.107	-1.900	-3.206	-1.088	.546
19	.948	.581	.439	-2.228	.674	-4.947	.182
20	.364	.496	.438	.552	.751	-5.638	-.176
21	-.413	.403	-.166	.564	.821	-5.254	-.172
22	-1.614	.000	.221	.579	.697	-4.284	-.174
23	-2.078	-.921	-.174	.583	-.736	-3.732	-.172
24	.554	-1.095	-.170	.548	.518	-3.209	-.172
25	.822	.161	.314	-1.606	-2.313	-5.387	-.168
26	.797	-.659	-.172	.286	.353	-.182	-.166
				$\delta_e = -30°$			
1	-.160	-.242	-.729	-.528	-.383	-.404	-.432
2	-.223	-.406	-1.316	-.879	-.691	-.590	-1.012
3	-.379	-.624	-1.145	-1.468	-1.304	-1.379	-2.285
4	-.658	-.876	-1.477	-.965	-1.081	-1.754	-1.758
5	-.270	-.876	-1.253	-.904	-1.561	-1.438	-1.870
6	-.697	-.839	-1.267	-1.250	-1.397	-1.512	-2.825
7	.289	.539	.827	-1.229	-1.315	-1.896	-2.375
8	.152	.457	.892	.589	.474	-1.842	.525
9	.096	.411	.821	.591	.538	-1.576	.625
10	.006	.016	.833	.564	.495	.463	.662
11	-.129	.270	.605	.521	.371	.551	.713
12	-.145	.077	.149	.452	.205	.557	.754
13	-.221	-.335	-1.310	.297	-.306	.500	.784
14	-.453	-.569	-1.515	-.074	-.762	.531	.733
15	-.799	-.844	-2.511	-2.108	-1.337	.508	-.181
16	-.689	-.941	-1.731	-1.538	-1.843	.451	-.644
17	.385	-1.020	-1.762	-1.652	-1.975	.309	-1.477
18	.934	.421	.092	-2.155	-3.377	-.621	.564
19	.904	.750	.521	-2.033	.723	-2.637	.161
20	.369	.673	.521	.587	.787	-3.594	-.185
21	-.482	.583	-.173	.599	.845	-5.469	-.183
22	-1.826	.075	.338	.613	.692	-4.674	-.179
23	-2.373	-1.661	-.171	.605	-.826	-4.072	-.181
24	.578	-1.376	-.173	.571	.534	-3.582	-.177
25	.852	.248	.420	-1.738	-1.880	-1.621	-.175
26	.773	-.390	-.169	.290	.426	-.172	-.179

TABLE 76 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = -20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.257	-.414	-.909	-.410	-.398	-.406	-.412
2	-.367	-.619	-1.406	-.686	-.653	-.553	-.992
3	-.557	-.728	-1.280	-1.090	-1.202	-1.309	-2.194
4	-.682	-.712	-1.697	-.771	-1.110	-1.636	-1.738
5	-.239	-.821	-1.175	-.731	-1.229	-1.340	-2.008
6	-.716	-.804	-1.008	-.976	-1.024	-1.480	-1.992
7	.300	.648	.754	-1.018	-.959	-1.503	-1.730
8	.161	.593	.793	.663	.535	-1.319	.536
9	.100	.545	.772	.667	.594	-1.145	.645
10	.055	.037	.748	.643	.547	.516	.682
11	.024	.377	.591	.596	.418	.600	.728
12	-.010	.138	.270	.525	.255	.613	.757
13	-.343	-.420	-1.594	.375	-.229	.536	.777
14	-.622	-.687	-2.217	-.002	-.616	.574	.720
15	-.667	-.751	-2.362	-2.139	-1.416	.545	-.179
16	-.659	-.955	-1.435	-1.502	-1.827	.482	-.639
17	.304	-.877	-1.266	-1.598	-1.967	.346	-1.445
18	.910	.506	.063	-1.835	-2.743	-.487	.567
19	.855	.868	.459	-1.659	.739	-1.915	.177
20	.341	.802	.447	.627	.804	-2.513	-.183
21	-.478	.642	-.185	.631	.847	-3.182	-.179
22	-1.843	.002	.305	.641	.735	-4.211	-.186
23	-2.331	-1.403	-.181	.627	-.875	-3.946	-.183
24	.584	-1.084	-.183	.592	.539	-3.487	-.181
25	.859	.292	.370	-1.761	-1.435	-1.190	-.179
26	.771	-.296	-.185	.294	.433	-.176	-.184

TABLE 77

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.051	.227	.195	.169	.148	.113	.078
2	.045	.325	.331	.306	.160	.099	-.012
3	.016	.390	.384	.346	.236	-.002	-.130
4	.008	.386	.437	.398	.148	.050	-.304
5	-.086	.388	.476	.423	.086	-.058	-.458
6	-.065	.319	.535	.412	-.028	-.133	-.684
7	-.134	-.213	-.439	.266	-.096	-.192	-.872
8	-.191	-.392	-.315	-.296	-.148	-.234	-.048
9	-.250	-.333	-.630	-.286	-.166	-.452	-.006
10	-.273	-.301	-.766	-.300	-.182	-.123	-.012
11	-.438	-.544	-.736	-.173	-.164	-.081	.046
12	-.546	-.627	-.844	-.105	-.152	-.105	.096
13	.308	.211	.181	-.089	-.118	-.127	.176
14	.631	.412	.234	-.074	-.118	-.121	.346
15	.752	.608	.372	-.060	-.110	-.107	-.122
16	.367	.749	.500	-.103	-.325	-.087	.038
17	-.134	.592	.443	-.245	-.693	-.048	-.172
18	-.261	-.211	.039	-.342	-1.002	-.030	.182
19	-.371	-.317	-.545	-.402	.096	.319	.490
20	-.715	-.442	-1.065	-.070	.142	.310	-.118
21	.051	-.580	-.106	-.074	.263	.278	-.114
22	-.226	-.598	-.868	-.054	.519	.429	-.112
23	-.917	-.110	-.108	-.032	.026	.353	-.114
24	.120	-.191	-.108	.018	.236	-.032	-.110
25	.305	-.122	-.789	-.068	-.671	-.462	-.110
26	.542	-.102	-.110	.272	.212	-.119	-.110
				$\delta_e = 30°$			
1	.104	.186	.171	.168	.123	.076	.024
2	.094	.232	.291	.244	.109	.036	-.077
3	.060	.253	.337	.298	.166	-.076	-.220
4	.038	.275	.396	.326	.059	-.036	-.390
5	-.008	.257	.460	.340	.004	-.130	-.549
6	.012	.200	.683	.326	-.105	-.212	-.772
7	.012	-.054	-.450	.156	-.196	-.256	-.974
8	-.054	-.152	-.412	-.292	-.138	-.296	-.037
9	-.070	-.150	-.655	-.398	-.180	-.520	-.010
10	-.116	-.122	-.679	-.406	-.215	-.118	-.008
11	-.092	-.188	-.532	-.398	-.213	-.082	.051
12	-.285	-.305	-.829	-.404	-.202	-.114	.108
13	.315	.234	.153	-.366	-.148	-.134	.189
14	.546	.295	.213	-.212	-.154	-.132	.366
15	.677	.427	.333	-.112	-.166	-.122	-.106
16	.313	.551	.426	-.168	-.383	-.106	-.010
17	-.076	.419	.341	-.300	-.761	-.052	-.289
18	-.090	-.158	.010	-.400	-1.148	-.046	.199
19	-.213	-.275	-.823	-.468	.121	.264	.496
20	-.277	-.303	-.972	-.066	.178	.254	-.104
21	-.004	-.371	-.098	-.068	.308	.214	-.102
22	-.299	-.465	-1.249	-.074	.565	.374	-.098
23	-1.026	-.160	-.102	-.034	-.010	.256	-.093
24	.106	-.273	-.106	.014	.245	-.166	-.102
25	.301	-.146	-1.066	-.076	-.771	-.530	-.100
26	.548	-.124	-.104	.252	.241	-.104	-.102
				$\delta_e = 20°$			
1	.141	.135	.125	.124	.066	.004	-.058
2	.129	.151	.182	.143	.036	-.042	-.157
3	.082	.155	.285	.215	.050	-.215	-.334
4	.060	.167	.281	.229	-.046	-.129	-.487
5	.000	.135	.446	.215	-.095	-.227	-.662
6	-.014	.098	.776	.193	-.211	-.303	-.897
7	.125	-.024	-.200	.040	-.318	-.343	-1.155
8	.052	-.056	-.156	-.193	-.087	-.376	.008
9	.032	-.034	-.491	-.277	-.129	-.643	.052
10	.008	-.002	-.483	-.267	-.149	-.064	.054
11	.010	-.084	-.339	-.243	-.147	-.028	.115
12	-.052	-.159	-.424	-.227	-.143	-.056	.173
13	.340	.219	.107	-.211	-.129	-.072	.260
14	.423	.185	.127	-.143	-.177	-.072	.431
15	.592	.277	.210	-.295	-.266	-.058	-.095
16	.219	.345	.273	-.253	-.479	-.050	-.070
17	-.002	.267	.184	-.408	-.833	-.012	-.423
18	-.028	-.110	.002	-.518	-1.334	-.050	.221
19	-.082	-.277	-.446	-.564	.151	.118	.491
20	-.058	-.287	-.610	.006	.221	.088	-.095
21	-.074	-.291	-.093	.012	.354	.036	-.095
22	-.561	-.265	-.729	.024	.620	.215	-.091
23	-1.342	-.291	-.093	.046	-.072	.090	-.089
24	.161	-.371	-.099	.102	.266	-.444	-.093
25	.370	-.086	-.620	-.211	-.901	-.669	-.093
26	.640	-.098	-.097	.297	.280	-.094	-.089

TABLE 77 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.147	.048	-.038	-.024	-.059	-.116	-.183
2	.094	.008	-.073	-.110	-.145	-.178	-.293
3	.127	.032	-.028	-.046	-.164	-.518	-.540
4	.147	.022	-.034	-.050	-.250	-.316	-.669
5	.047	-.119	-.117	-.082	-.287	-.410	-.902
6	-.345	-.483	-.339	-.120	-.422	-.494	-1.072
7	.145	.069	.569	-.178	-.586	-.536	-1.484
8	.073	.012	.288	.062	.055	-.550	.098
9	.102	.008	.248	.042	.055	-.974	.153
10	.116	.093	.266	.018	.024	.058	.165
11	.086	-.028	.407	.030	-.006	.100	.233
12	-.106	-.079	.472	.034	-.038	.082	.287
13	.251	.057	-.073	-.034	-.121	.058	.378
14	.182	.014	-.085	-.100	-.250	.070	.548
15	.188	-.026	-.077	-.585	-.479	.070	-.074
16	-.478	-.105	-.101	-.413	-.632	.064	-.159
17	.198	-.481	-.177	-.589	-1.012	.078	-.651
18	-.018	.079	.048	-.703	-1.693	-.074	.271
19	-.043	.057	.000	-.741	.248	-.306	.496
20	.539	.044	-.018	.126	.329	-.388	-.074
21	-.182	.006	-.069	.130	.463	-.434	-.072
22	-.888	-.085	-.099	.146	.715	-.194	-.070
23	-1.639	-.519	-.085	.144	-.174	-.366	-.072
24	.216	-.549	-.069	.192	.297	-1.086	-.076
25	.433	.008	-.032	-.393	-1.143	-1.098	-.070
26	.724	-.089	-.073	.287	.335	-.072	-.070
				$\delta_e = -20°$			
1	-.048	-.090	-.336	-.201	-.209	-.256	-.318
2	-.097	-.134	-.485	-.421	-.354	-.342	-.429
3	-.093	-.132	-.398	-.298	-.384	-.839	-.795
4	-.103	-.162	-.543	-.304	-.471	-.513	-.855
5	-.111	-.393	-.702	-.360	-.507	-.583	-1.165
6	-.877	-1.200	-1.738	-.459	-.712	-.682	-1.410
7	.139	.253	.664	-.630	-1.066	-.722	-2.016
8	.048	.194	.700	.348	.231	-.748	.221
9	.040	.182	.692	.372	.264	-1.062	.288
10	.046	.036	.674	.340	.245	.221	.310
11	-.020	.126	.610	.320	.173	.268	.374
12	-.208	.042	.469	.290	.091	.264	.433
13	-.087	-.164	-.555	.207	-.139	.233	.523
14	-.115	-.192	-.459	-.032	-.416	.247	.668
15	-.218	-.176	-.676	-.863	-.803	.237	-.093
16	-1.077	-.385	-.845	-.600	-.829	.219	-.266
17	.504	-1.605	-1.139	-.801	-1.310	.193	-.968
18	.944	.285	.083	-.936	-2.213	-.153	.344
19	.960	.461	.410	-.986	.358	-.938	.491
20	.450	.425	.439	.270	.447	-1.135	-.097
21	-.290	.375	-.091	.274	.592	-1.099	-.093
22	-1.399	.084	.268	.288	.813	-.787	-.089
23	-1.675	-.651	-.091	.302	-.346	-.954	-.095
24	.308	-.810	-.093	.312	.350	-1.829	-.091
25	.544	.114	.362	-.592	-1.497	-1.759	-.095
26	.831	-.130	-.095	.300	.425	-.080	-.093
				$\delta_e = -30°$			
1	-.125	-.196	-.514	-.283	-.257	-.311	-.360
2	-.208	-.280	-.700	-.539	-.415	-.393	-.480
3	-.228	-.290	-.524	-.415	-.435	-.944	-.905
4	-.255	-.355	-.838	-.387	-.516	-.573	-.887
5	-.200	-.782	-.964	-.425	-.540	-.627	-1.249
6	-.802	-1.046	-1.450	-.589	-.753	-.729	-1.532
7	.154	.385	.674	-.958	-1.259	-.764	-2.144
8	.063	.339	.790	.483	.332	-.784	.289
9	.040	.321	.778	.511	.366	-1.116	.354
10	.034	.028	.790	.511	.350	.287	.385
11	-.081	.262	.664	.493	.267	.339	.449
12	-.162	.139	.376	.457	.170	.339	.510
13	-.178	-.230	-.874	.359	-.103	.301	.593
14	-.242	-.349	-.902	.082	-.441	.319	.719
15	-.491	-.329	-1.132	-1.078	-.943	.307	-.101
16	-.935	-.661	-1.230	-.667	-.897	.281	-.296
17	.511	-1.206	-1.304	-.870	-1.397	.226	-1.089
18	.954	.405	.098	-1.018	-2.443	-.170	.374
19	.970	.635	.488	-1.084	.425	-1.154	.474
20	.459	.613	.544	.345	.518	-1.403	-.105
21	-.323	.583	-.106	.353	.650	-1.367	-.099
22	-1.586	.262	.394	.369	.856	-1.032	-.101
23	-1.604	-.663	-.108	.377	-.458	-1.210	-.103
24	.360	-.921	-.100	.279	.383	-2.154	-.107
25	.598	.159	.462	-.689	-1.646	-1.940	-.103
26	.865	-.159	-.112	.307	.464	-.102	-.103

TABLE 77 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = -10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.257	-.356	-.822	-.191	-.279	-.319	-.354
2	-.436	-.582	-.540	-.108	-.401	-.381	-.463
3	-.503	-.558	-.536	-.036	-.208	-.855	-.819
4	-.465	-.550	-.478	.066	-.235	-.470	-.791
5	-.190	-.496	-.434	.135	-.275	-.504	-1.124
6	-.436	-.476	-.440	.159	-.464	-.585	-1.380
7	.123	.492	.676	-.351	-1.051	-.621	-1.937
8	.004	.454	.768	.564	.397	-.623	.323
9	-.026	.440	.786	.614	.439	-.929	.374
10	-.002	-.008	.782	.614	.425	.327	.417
11	.065	.414	.700	.602	.354	.377	.484
12	.044	.298	.498	.568	.261	.387	.535
13	-.382	-.390	-1.268	.488	.008	.343	.614
14	-.515	-.612	-1.624	.257	-.277	.373	.728
15	-.420	-.534	-.524	-.859	-1.000	.351	-.114
16	-.390	-.434	-.436	-.564	-.834	.319	-.272
17	.465	-.420	-.448	-.743	-1.312	.282	-1.073
18	.911	.492	.064	-.861	-2.326	-.133	.388
19	.947	.770	.514	-.916	.453	-1.063	.463
20	.511	.752	.586	.390	.542	-1.296	-.116
21	-.303	.682	-.112	.398	.672	-1.266	-.114
22	-1.402	.304	.522	.416	.860	-.933	-.112
23	-1.608	-.518	-.110	.410	-.478	-1.133	-.130
24	.356	-.688	-.110	.420	.389	-2.105	-.112
25	.586	.252	.548	-.647	-1.504	-1.790	-.108
26	.863	-.040	-.110	.311	.484	-.113	-.114

TABLE 78

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.097	.386	.501	.470	.286	.199	.151
2	.070	.440	.670	.532	.333	.183	.120
3	.022	.446	.708	.550	.331	.167	.084
4	.022	.420	.716	.542	.252	.159	.072
5	-.121	.426	.732	.524	.166	.141	.070
6	-.095	.335	.688	.486	.093	.116	.102
7	-.177	-.241	-.507	.288	.020	.082	.197
8	-.278	-.490	-.392	-.434	-.327	.058	-.353
9	-.372	-.494	-.799	-.414	-.410	.062	-.444
10	-.382	-.398	-1.008	-.554	-.471	-.355	-.552
11	-.700	-.805	-.986	-.508	-.467	-.398	-.592
12	-.724	-.892	-1.147	-.410	-.438	-.444	-.649
13	.475	.402	.463	-.340	-.426	-.474	-.695
14	.765	.683	.541	-.264	-.450	-.526	-.721
15	.783	.717	.608	.110	.085	-.534	-.076
16	.378	.717	.545	.098	.077	-.526	.191
17	-.183	.522	.467	.078	.146	-.470	.394
18	-.384	-.231	.068	.050	.304	-.408	-.139
19	-.652	-.388	-.656	.044	-.481	.707	-.159
20	-.734	-.492	-1.746	-.476	-.647	.747	-.072
21	.181	-.729	-.080	-.556	-.740	.735	-.070
22	.209	-.773	-1.777	-.610	-.807	.655	-.068
23	.328	.100	-.074	-.594	.211	.677	-.064
24	-.239	.024	-.082	-.586	-.110	.373	-.066
25	-.400	-.472	-1.618	.224	.158	-.116	-.070
26	-.793	-.432	-.074	.014	-.596	-.084	-.068
				$\delta_e = 30°$			
1	.104	.287	.445	.381	.202	.129	.089
2	.086	.321	.600	.427	.248	.106	.053
3	.074	.331	.608	.449	.230	.088	.018
4	.052	.331	.612	.441	.143	.080	.006
5	-.018	.305	.726	.423	.093	.054	.010
6	-.152	.213	.867	.379	.026	.024	.046
7	-.048	-.145	-.427	.186	-.028	.006	.149
8	-.124	-.235	-.427	-.348	-.293	-.012	-.350
9	-.138	-.209	-.751	-.480	-.404	.012	-.446
10	-.198	-.205	-.841	-.504	-.465	-.343	-.554
11	-.308	-.426	-.839	-.516	-.493	-.392	-.604
12	-.962	-1.594	-1.660	-.520	-.479	-.446	-.663
13	.492	.341	.423	-.540	-.469	-.480	-.709
14	.732	.536	.465	-.514	-.475	-.542	-.733
15	.752	.570	.555	.038	.042	-.558	-.075
16	.320	.570	.495	.014	.028	-.550	.172
17	-.068	.375	.350	-.016	.097	-.502	.364
18	-.198	-.157	.082	-.032	.253	-.422	-.149
19	-.356	-.281	-.863	-.036	-.465	.745	-.178
20	-1.702	-.376	-1.197	-.429	-.632	.775	-.067
21	.108	-.526	-.064	-.510	-.719	.763	-.063
22	.118	-1.550	-1.696	-.553	-.776	.693	-.065
23	.192	.024	-.068	-.555	.166	.723	-.065
24	-.208	-.022	-.064	-.547	-.115	.476	-.067
25	-.350	-.492	-1.382	.221	.111	-.106	-.065
26	-.654	-.446	-.066	.055	-.580	-.074	-.067
				$\delta_e = 20°$			
1	.154	.187	.375	.245	.117	.054	.002
2	.123	.207	.471	.281	.130	.022	-.049
3	.101	.209	.481	.291	.093	.000	-.101
4	.077	.197	.483	.283	.043	-.020	-.123
5	.004	.160	.750	.271	.014	-.044	-.128
6	-.158	.108	.942	.253	-.018	-.067	-.097
7	.101	-.002	-.329	.115	-.043	-.087	-.016
8	.010	-.069	-.212	-.308	-.249	-.081	-.283
9	.008	-.087	-.571	-.407	-.348	-.022	-.364
10	-.020	-.047	-.617	-.405	-.399	-.294	-.451
11	-.131	-.292	-.565	-.399	-.405	-.343	-.480
12	-.624	-.582	-.890	-.387	-.391	-.387	-.516
13	.503	.239	.301	-.354	-.377	-.419	-.545
14	.701	.371	.341	-.350	-.370	-.468	-.520
15	.711	.387	.381	-.049	-.040	-.478	-.061
16	.248	.371	.345	-.081	-.067	-.472	.103
17	-.020	.258	.204	-.101	-.016	-.427	.275
18	-.119	-.130	.050	-.117	.138	-.333	-.077
19	-.251	-.239	-.545	-.115	-.415	.833	.004
20	-.879	-.345	-.792	-.397	-.555	.859	-.063
21	.063	-.426	-.058	-.472	-.623	.857	-.063
22	.063	-.667	-.972	-.508	-.636	.806	-.057
23	.109	-.063	-.066	-.516	.148	.841	-.053
24	-.178	-.081	-.060	-.496	-.077	.696	-.059
25	-.301	-.424	-.876	.202	.036	-.008	-.057
26	-.562	-.367	-.062	.065	-.498	-.060	-.057

TABLE 78 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 10°$			
1	.159	.108	.250	.084	-.010	-.046	-.085
2	.123	.090	.363	.100	-.014	-.087	-.139
3	.099	.082	.414	.094	-.054	-.119	-.204
4	.072	.072	.441	.084	-.092	-.139	-.236
5	.042	.034	.926	.096	-.104	-.161	-.256
6	-.080	.000	.789	.084	-.102	-.175	-.234
7	.167	.028	-.174	-.012	-.094	-.185	-.169
8	.111	-.008	-.178	-.130	-.153	-.173	-.204
9	.085	-.026	-.250	-.170	-.227	-.089	-.276
10	.062	.044	-.252	-.182	-.271	-.210	-.351
11	.024	-.112	-.260	-.178	-.283	-.244	-.365
12	-.235	-.240	-.299	-.174	-.283	-.288	-.397
13	.278	.136	.135	-.156	-.269	-.319	-.407
14	.696	.188	.158	-.168	-.241	-.359	-.359
15	.706	.180	.129	-.160	-.177	-.371	-.056
16	.183	.152	.080	-.192	-.231	-.369	.030
17	.107	.110	-.074	-.226	-.209	-.323	.177
18	-.012	-.030	.043	-.240	-.098	-.224	-.030
19	-.085	-.158	-.258	-.230	-.311	.883	.121
20	-.217	-.208	-.355	-.290	-.408	.911	-.050
21	-.014	-.232	-.041	-.346	-.438	.913	-.048
22	-.048	-.238	-.434	-.372	-.373	.875	-.046
23	-.085	-.148	-.045	-.368	.070	.893	-.024
24	-.105	-.142	-.043	-.356	-.018	.861	-.048
25	-.177	-.309	-.395	.158	-.129	.046	-.044
26	-.340	-.259	-.045	.126	-.337	-.048	-.050
				$\delta_e = 0°$			
1	.193	.062	-.018	-.026	-.071	-.117	-.143
2	.161	.006	-.024	-.038	-.098	-.165	-.207
3	.146	-.012	-.033	-.044	-.154	-.207	-.274
4	.128	-.024	-.039	-.053	-.171	-.229	-.305
5	.051	-.058	-.012	-.051	-.165	-.256	-.325
6	-.047	-.094	.508	-.016	-.148	-.270	-.311
7	.199	.034	.006	-.071	-.138	-.268	-.258
8	.171	.008	-.026	-.030	-.075	-.245	-.151
9	.148	.002	-.014	-.040	-.128	-.157	-.225
10	.138	.120	-.004	-.053	-.167	-.149	-.290
11	.093	-.036	.183	-.044	-.189	-.177	-.297
12	-.055	-.090	.589	-.020	-.195	-.209	-.319
13	.140	.050	.002	-.089	-.187	-.237	-.325
14	.368	-.010	-.012	-.113	-.159	-.276	-.268
15	.411	-.052	-.020	-.224	-.220	-.290	-.033
16	.126	-.086	-.041	-.257	-.283	-.292	.018
17	.193	-.064	-.055	-.281	-.278	-.256	.141
18	.008	.034	.055	-.291	-.197	-.153	.014
19	-.026	-.004	-.006	-.279	-.242	.905	.176
20	.039	-.022	-.020	-.228	-.321	.938	-.033
21	-.047	-.016	-.035	-.283	-.337	.944	-.031
22	-.085	-.012	-.083	-.305	-.246	.942	-.029
23	-.140	-.215	-.045	-.303	.033	.958	-.025
24	-.085	-.189	-.037	-.305	.018	.950	-.025
25	-.165	-.251	-.061	.127	-.193	.070	-.029
26	-.311	-.211	-.043	.135	-.234	-.040	-.029
				$\delta_e = -10°$			
1	.163	.022	-.181	-.127	-.129	-.166	-.192
2	.179	-.039	-.153	-.194	-.183	-.220	-.258
3	.147	-.063	-.290	-.172	-.245	-.268	-.329
4	.131	-.085	-.300	-.188	-.252	-.298	-.365
5	.050	-.142	-.250	-.190	-.239	-.326	-.393
6	-.161	-.215	-.286	-.164	-.213	-.336	-.387
7	.169	.069	.343	-.141	-.195	-.328	-.341
8	.165	.065	.345	.065	-.006	-.302	-.109
9	.131	.059	.393	.091	-.038	-.214	-.175
10	.135	.104	.399	.079	-.068	-.062	-.238
11	.111	.022	.780	.085	-.101	-.090	-.236
12	-.072	-.012	.861	.095	-.127	-.122	-.254
13	.113	-.053	-.308	.044	-.133	-.150	-.254
14	.089	-.167	-.325	-.042	-.117	-.176	-.190
15	.151	-.228	-.395	-.299	-.278	-.192	-.054
16	-.135	-.270	-.442	-.339	-.360	-.202	-.018
17	.314	-.254	-.496	-.360	-.362	-.176	.109
18	-.012	.106	.040	-.376	-.304	-.086	.030
19	-.042	.159	.153	-.354	-.181	.902	.198
20	.612	.167	.149	-.178	-.249	.930	-.048
21	-.091	.161	-.048	-.232	-.245	.938	-.048
22	-.161	.136	-.016	-.259	-.145	.952	-.046
23	-.270	-.272	-.052	-.261	.020	.962	-.040
24	-.020	-.236	-.050	-.265	.058	.966	-.048
25	-.068	-.195	.131	.119	-.264	.054	-.048
26	-.139	-.171	-.048	.149	-.171	-.040	-.046

TABLE 78 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 0°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -20°$			
1	.106	-.018	-.384	-.240	-.218	-.248	-.264
2	.065	-.053	-.294	-.387	-.281	-.309	-.338
3	.024	-.104	-.580	-.336	-.348	-.359	-.421
4	-.008	-.145	-.608	-.344	-.348	-.389	-.461
5	-.022	-.222	-.441	-.340	-.328	-.420	-.499
6	-.520	-.479	-.896	-.348	-.293	-.429	-.499
7	.147	.141	.418	-.308	-.271	-.420	-.461
8	.118	.138	.486	.232	.096	-.380	-.038
9	.094	.134	.492	.279	.084	-.292	-.099
10	.094	.079	.488	.279	.069	.000	-.151
11	.080	.106	.580	.279	-.006	-.015	-.147
12	-.120	.075	.906	.273	-.035	-.042	-.163
13	-.016	-.159	-.663	.230	-.073	-.084	-.157
14	-.029	-.238	-.657	.110	-.069	-.103	-.087
15	-.086	-.283	-.812	-.397	-.358	-.122	-.068
16	-.633	-.403	-.912	-.436	-.454	-.139	-.072
17	.541	-.576	-1.051	-.468	-.477	-.126	.016
18	.514	.204	.012	-.493	-.432	-.061	.078
19	.800	.344	.318	-.468	-.098	.887	.270
20	.516	.350	.373	-.065	-.159	.910	-.062
21	-.151	.369	-.061	-.104	-.141	.920	-.062
22	-.233	.299	.273	-.126	-.012	.952	-.060
23	-.418	-.352	-.069	-.141	-.029	.962	-.052
24	.047	-.303	-.065	-.138	.106	.956	-.064
25	.016	-.106	.351	.075	-.358	.019	-.060
26	.002	-.112	-.061	.206	-.098	-.067	-.060
				$\delta_e = -30°$			
1	-.069	-.130	-.458	-.238	-.253	-.273	-.274
2	-.119	-.233	-.411	-.357	-.308	-.332	-.350
3	-.180	-.263	-.591	-.347	-.401	-.387	-.433
4	-.237	-.311	-.701	-.361	-.421	-.423	-.480
5	-.105	-.377	-.792	-.375	-.399	-.455	-.528
6	-.747	-1.142	-1.456	-.504	-.381	-.468	-.531
7	.063	.224	.479	-.431	-.372	-.457	-.512
8	.051	.235	.607	.359	.176	-.419	.045
9	.020	.243	.625	.417	.182	-.340	-.010
10	.020	-.004	.625	.417	.194	.081	-.063
11	.026	.249	.613	.421	.095	.067	-.053
12	-.117	.183	.676	.403	.043	.049	-.075
13	-.071	-.195	-.768	.349	-.022	.004	-.069
14	-.174	-.333	-1.053	.198	-.049	-.008	.006
15	-.249	-.327	-1.037	-.435	-.415	-.028	-.061
16	-1.059	-.451	-1.273	-.488	-.530	-.055	-.081
17	.468	-1.144	-1.037	-.522	-.577	-.057	-.016
18	.854	.302	.084	-.542	-.581	-.012	.132
19	.889	.510	.426	-.514	-.040	.858	.323
20	.470	.535	.499	.032	-.077	.883	-.061
21	-.166	.553	-.071	-.018	-.038	.893	-.065
22	-.267	.403	.403	-.038	.111	.937	-.061
23	-.494	-.414	-.077	-.056	-.057	.933	-.059
24	.087	-.381	-.077	-.056	.134	.911	-.057
25	.069	-.019	.436	.036	-.468	-.006	-.059
26	.095	-.058	-.075	.244	-.002	-.071	-.057
				$\delta_e = -40°$			
1	-.206	-.387	-.699	-.140	-.241	-.262	-.273
2	-.339	-.427	-.407	.034	-.205	-.306	-.337
3	-.323	-.453	-.517	.142	-.191	-.323	-.415
4	-.369	-.495	-.473	.174	-.175	-.341	-.461
5	-.206	-.515	-.470	.200	-.187	-.363	-.495
6	-.545	-.501	-.475	.204	-.189	-.371	-.507
7	.056	.303	.534	.092	-.205	-.359	-.493
8	-.036	.329	.635	.450	.247	-.329	.084
9	-.032	.337	.654	.508	.275	-.274	.040
10	-.032	-.040	.642	.530	.293	.147	-.008
11	-.024	.355	.611	.530	.221	.145	.008
12	-.090	.329	.578	.520	.137	.127	-.004
13	-.192	-.349	-1.067	.490	.078	.083	.002
14	-.329	-.371	-.969	.364	.052	.083	.076
15	-.413	-.451	-.513	-.384	-.375	.054	-.078
16	-.595	-.457	-.450	-.414	-.486	.018	-.076
17	.463	-.501	-.487	-.436	-.524	.016	-.052
18	.896	.389	.033	-.456	-.540	.046	.162
19	.944	.649	.468	-.440	.026	.835	.365
20	.567	.681	.578	.088	-.006	.853	-.078
21	-.152	.695	-.079	.054	.024	.853	-.078
22	-.259	.581	.568	.032	.171	.909	-.074
23	-.495	-.283	-.090	.008	-.034	.889	-.066
24	.128	-.271	-.086	.010	.165	.823	-.076
25	.114	.054	.546	.044	-.396	.012	-.080
26	.142	.020	-.084	.248	.062	-.081	-.074

TABLE 79

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.033	.387	.587	.545	.369	.302	.297
2	-.056	.428	.729	.584	.411	.313	.330
3	-.074	.444	.742	.605	.415	.340	.385
4	-.074	.412	.760	.609	.375	.348	.451
5	-.217	.479	.762	.591	.312	.354	.527
6	.002	.385	.645	.549	.153	.354	.631
7	-.341	-.362	-.779	.286	-.054	.335	.787
8	-.562	-.671	-.585	-.595	-.461	.308	-.689
9	-.525	-.689	-.589	-.317	-.675	.094	-.887
10	-.512	-.525	-.574	-.200	-.457	-.563	-1.064
11	-.525	-.648	-.595	-.146	-.474	-.629	-1.145
12	-.525	-.636	-.566	-.111	-.554	-.829	-1.387
13	.539	.508	.529	-.181	-.916	-.654	-1.631
14	.752	.702	.550	-.695	-1.023	-.765	-2.277
15	.781	.726	.678	.337	.394	-.792	-.043
16	.417	.735	.599	.364	.530	-.815	.459
17	-.310	.504	.506	.383	.694	-.838	.480
18	-.529	-.393	-.047	.391	.899	-1.129	-.766
19	-.517	-.656	-.845	.418	-1.449	-1.150	-1.779
20	-.525	-.568	-.578	-.930	-1.201	-1.123	-.045
21	.388	-.518	-.048	-.846	-1.761	-1.500	-.049
22	.570	-.521	-.618	-.977	-2.782	-1.815	-.047
23	.886	.298	-.047	-1.019	.474	-1.962	-.057
24	-.651	.101	-.045	-1.086	-1.044	-4.035	-.051
25	-1.831	-.726	-.574	.399	.606	-1.667	-.047
26	-2.099	-.961	-.048	-.907	-1.495	-.052	-.045
				$\delta_e = 30°$			
1	.115	.313	.540	.458	.294	.254	.259
2	.052	.344	.718	.489	.329	.268	.290
3	-.011	.338	.693	.499	.331	.285	.350
4	-.076	.302	.727	.495	.281	.299	.418
5	-.172	.305	.830	.468	.212	.299	.497
6	-.195	.219	.698	.425	.027	.301	.602
7	-.055	-.181	-.674	.146	-.264	.283	.770
8	-.247	-.366	-.672	-.540	-.442	.254	-.689
9	-.333	-.408	-.777	-.631	-.786	.031	-.969
10	-.447	-.439	-.876	-.616	-.658	-.573	-1.118
11	-.876	-1.000	-1.351	-.693	-.732	-.654	-1.193
12	-.933	-1.151	-1.489	-.734	-.780	-.940	-1.468
13	.564	.426	.494	-.806	-1.078	-.750	-1.731
14	.734	.576	.521	-1.398	-1.461	-.897	-2.391
15	.742	.595	.586	.280	.358	-.942	-.039
16	.304	.576	.489	.313	.495	-.975	.439
17	-.153	.353	.351	.332	.665	-1.006	.455
18	-.365	-.305	-.004	.351	.881	-1.313	-.776
19	-.778	-.458	-1.191	.383	-1.363	-1.243	-1.783
20	-.987	-.523	-1.181	-1.008	-1.241	-1.192	-.039
21	.373	-.824	-.044	-.938	-1.826	-1.553	-.043
22	.560	-1.166	-1.893	-1.089	-2.855	-1.868	-.043
23	.874	.221	-.048	-1.177	.465	-2.004	-.048
24	-.660	.011	-.048	-1.223	-.996	-4.078	-.048
25	-1.880	-.895	-1.662	.390	.579	-1.854	-.039
26	-2.176	-1.183	-.048	-.862	-1.663	-.047	-.046
				$\delta_e = 20°$			
1	.133	.187	.449	.324	.200	.159	.176
2	.066	.218	.599	.348	.234	.171	.211
3	.027	.218	.605	.357	.230	.192	.260
4	.006	.208	.697	.318	.184	.200	.326
5	-.083	.174	.934	.291	.127	.205	.411
6	-.275	.098	.730	.250	-.021	.205	.523
7	.052	-.073	-.424	-.008	-.260	.198	.707
8	-.097	-.180	-.462	-.388	-.359	.182	-.655
9	-.135	-.195	-.545	-.499	-.646	.031	-.787
10	-.168	-.191	-.665	-.483	-.570	-.516	-1.033
11	-.456	-.697	-.971	-.536	-.652	-.597	-1.153
12	-1.224	-1.875	-2.416	-.604	-.721	-.841	-1.393
13	.567	.297	.374	-.709	-1.021	-.699	-1.638
14	.696	.405	.395	-.951	-1.308	-.850	-2.236
15	.714	.425	.414	.221	.302	-.902	-.037
16	.217	.402	.333	.254	.433	-.942	.386
17	.004	.220	.125	.280	.605	-.981	.469
18	-.199	-.210	.012	.299	.840	-1.296	-.715
19	-.503	-.293	-.618	.336	-1.162	-.981	-1.669
20	-1.640	-.332	-.855	-.924	-1.152	-.942	-.033
21	.327	-.614	-.033	-.852	-1.692	-1.271	-.035
22	.511	-2.174	-1.701	-1.014	-2.561	-1.587	-.033
23	.838	.127	-.040	-1.118	.420	-1.747	-.035
24	-.623	-.014	-.039	-1.173	-.850	-3.741	-.041
25	-1.743	-.851	-1.247	.398	.534	-1.620	-.037
26	-2.058	-1.118	-.039	-.889	-1.686	-.048	-.033

TABLE 79 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.166	.050	.064	-.010	-.031	-.002	.044
2	.091	.004	.058	-.019	-.016	-.002	.077
3	.070	-.019	.109	-.027	-.027	.014	.120
4	.050	-.036	.150	-.037	-.027	.021	.186
5	-.010	-.094	.860	-.035	-.033	.027	.265
6	-.222	-.092	.404	-.029	-.047	.037	.379
7	.188	.015	-.047	-.066	-.143	.047	.582
8	.112	-.019	-.078	-.088	-.182	.078	-.489
9	.106	-.019	-.080	-.115	-.339	.068	-.569
10	.081	.056	-.099	-.121	-.320	-.326	-.770
11	-.085	-.188	-.193	-.144	-.392	-.375	-.911
12	-.528	-.718	-.374	-.163	-.447	-.533	-1.099
13	.083	.060	-.004	-.193	-.671	-.471	-1.304
14	.495	.023	-.057	-.422	-.837	-.596	-1.685
15	.667	-.013	-.080	.054	.151	-.637	-.019
16	.097	-.063	-.148	.086	.273	-.678	.319
17	.244	-.031	-.318	.111	.449	-.719	.484
18	.010	.015	.018	.142	.727	-1.109	-.538
19	-.101	-.081	-.097	.195	-.937	-.330	-1.327
20	-.654	-.094	-.105	-.632	-.969	-.309	-.015
21	.242	-.140	-.016	-.654	-1.369	-.555	-.017
22	.431	-.608	-.281	-.763	-2.018	-.850	-.014
23	.772	.027	-.018	-.833	.369	-.973	-.025
24	-.497	-.035	-.016	-.877	-.629	-2.689	-.019
25	-1.426	-.601	-.199	.389	.437	-.965	-.010
26	-1.971	-.787	-.014	-.617	-1.322	-.016	-.017
				$\delta_e = -20°$			
1	.107	-.051	-.440	-.245	-.159	-.119	-.070
2	.083	-.067	-.313	-.340	-.168	-.119	-.046
3	.048	-.084	-.556	-.297	-.190	-.115	-.015
4	.036	-.122	-.599	-.295	-.162	-.100	.039
5	-.010	-.145	-.190	-.285	-.141	-.094	.110
6	-.058	-.192	-.521	-.272	-.085	-.076	.224
7	.131	.084	.319	-.148	-.106	-.049	.429
8	.103	.098	.227	.122	-.029	-.008	-.337
9	.079	.084	.270	.153	-.087	.086	-.445
10	.089	.073	.272	.150	-.085	-.172	-.555
11	.099	.045	.413	.153	-.161	-.186	-.691
12	-.054	.029	.689	.148	-.224	-.293	-.826
13	-.036	-.218	-.691	.062	-.404	-.293	-1.077
14	-.020	-.298	-.628	-.107	-.547	-.389	-1.269
15	-.020	-.322	-.732	-.093	.074	-.432	-.041
16	-.073	-.410	-.820	-.068	.184	-.480	.242
17	.603	-.304	-.963	-.039	.354	-.523	.474
18	.218	.188	-.004	-.006	.629	-.760	-.381
19	.171	.184	.192	.062	-.756	.088	-.948
20	.444	.288	.245	-.416	-.787	.098	-.031
21	.143	.294	-.033	-.478	-1.155	-.078	-.033
22	.310	.245	.065	-.563	-1.605	-.342	-.033
23	.651	-.078	-.037	-.619	.335	-.484	-.039
24	-.375	-.057	-.037	-.658	-.489	-1.895	-.035
25	-1.046	-.396	.194	.383	.354	-.564	-.035
26	-1.669	-.557	-.033	-.468	-1.012	-.033	-.033
				$\delta_e = -30°$			
1	-.057	-.145	-.511	-.303	-.205	-.162	-.091
2	-.096	-.205	-.515	-.423	-.217	-.176	-.066
3	-.139	-.224	-.684	-.425	-.264	-.174	-.039
4	-.145	-.259	-.803	-.407	-.234	-.172	.015
5	-.049	-.250	-.696	-.429	-.205	-.164	.089
6	-.312	-.393	-.942	-.448	-.124	-.150	.199
7	.057	.149	.374	-.217	-.105	-.117	.398
8	.016	.161	.308	.245	.066	-.065	-.265
9	.004	.162	.366	.268	.047	.059	-.356
10	.031	.008	.380	.288	.029	-.109	-.455
11	.067	.143	.441	.288	-.048	-.111	-.594
12	-.110	.085	.645	.278	-.114	-.188	-.727
13	-.120	-.279	-.924	.215	-.287	-.206	-.971
14	-.196	-.315	-1.055	.063	-.430	-.293	-1.145
15	-.165	-.368	-1.240	-.145	.031	-.335	-.035
16	-.324	-.522	-1.476	-.127	.140	-.392	.244
17	.498	-.458	-.825	-.092	.298	-.432	.482
18	.722	.280	.035	-.065	.581	-.610	-.329
19	.749	.389	.283	.008	-.659	.275	-.872
20	.478	.480	.353	-.303	-.707	.279	-.033
21	.133	.429	-.035	-.391	-1.070	.129	-.036
22	.292	.366	.298	-.464	-1.432	-.123	-.037
23	.612	-.060	-.037	-.526	.293	-.257	-.035
24	-.322	-.101	-.035	-.575	-.419	-1.541	-.041
25	-.973	-.342	.312	.380	.318	-.402	-.035
26	-1.545	-.545	-.035	-.417	-.901	-.044	-.031

TABLE 79 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 10°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.187	-.269	-.563	-.236	-.198	-.161	-.087
2	-.267	-.486	-.403	-.131	-.162	-.161	-.059
3	-.310	-.412	-.812	-.107	-.162	-.157	-.030
4	-.331	-.508	-.836	-.087	-.132	-.137	.024
5	-.204	-.684	-.836	-.079	-.124	-.129	.095
6	-.746	-.641	-1.038	-.097	-.078	-.115	.204
7	.008	.235	.423	-.061	-.078	-.089	.402
8	-.035	.271	.366	.323	.140	-.048	-.198
9	-.050	.275	.419	.329	.160	.064	-.299
10	-.031	-.041	.431	.368	.138	-.044	-.388
11	-.006	.267	.468	.388	.048	-.038	-.517
12	-.090	.241	.524	.382	-.032	-.099	-.650
13	-.196	-.384	-1.200	.307	-.206	-.133	-.893
14	-.354	-.404	-.913	.176	-.321	-.213	-1.065
15	-.494	-.622	-1.073	-.121	.042	-.262	-.050
16	-.806	-.688	-.889	-.093	.150	-.320	.246
17	.425	-.643	-1.087	-.063	.313	-.374	.493
18	.804	.353	.061	-.022	.581	-.557	-.289
19	.846	.459	.334	.042	-.603	.300	-.794
20	.554	.655	.419	-.222	-.629	.312	-.038
21	.123	.655	-.059	-.303	-1.008	.183	-.044
22	.283	.567	.411	-.380	-1.355	-.052	-.042
23	.596	-.096	-.057	-.453	.325	-.173	-.044
24	-.263	-.061	-.053	-.501	-.395	-1.364	-.044
25	-.842	-.224	.419	.384	.321	-.380	-.042
26	-1.400	-.404	-.059	-.388	-.842	-.064	-.046

TABLE 80

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 40°$			
1	.000	.309	.482	.451	.341	.323	.342
2	-.040	.373	.615	.508	.384	.340	.377
3	-.057	.412	.675	.540	.425	.366	.466
4	-.055	.424	.716	.551	.421	.397	.553
5	-.206	.526	.756	.559	.372	.422	.650
6	.087	.426	.631	.543	.216	.447	.757
7	-.332	-.466	-.653	.273	-.062	.461	.874
8	-.466	-.574	-.607	-.634	-.622	.449	-1.043
9	-.494	-.590	-.621	-.660	-.768	.140	-1.417
10	-.506	-.510	-.601	-.621	-.797	-.817	-1.306
11	-.526	-.510	-.508	-.538	-.513	-.529	-.486
12	-.504	-.536	-.554	-.591	-.596	-.683	-.711
13	.399	.375	.395	-.773	-.817	-.942	-1.796
14	.662	.580	.470	-.836	-.803	-.942	-2.458
15	.731	.671	.595	.405	.458	-.835	-.040
16	.476	.681	.573	.478	.585	-.615	.281
17	-.277	.040	.290	.385	.577	-.175	-.049
18	-.518	-.534	-.069	.542	.838	-1.008	-1.148
19	-.522	-.554	-.732	.599	-1.454	-3.078	-1.759
20	-.502	-.592	-.667	-1.152	-1.287	-3.049	-.038
21	.449	-.548	-.026	-1.093	-1.281	-3.601	-.040
22	.595	-.528	-.542	-1.022	-2.587	-3.661	-.040
23	.711	.384	-.024	-1.040	.524	-3.195	-.047
24	-1.093	.175	-.020	-1.180	-2.618	-2.875	-.040
25	-1.644	-.857	-.581	.342	.729	-1.776	-.036
26	-1.668	-1.183	-.274	-1.528	-1.725	-.270	-.077
				$\delta_e = 30°$			
1	.025	.238	.442	.373	.276	.282	.319
2	-.084	.246	.564	.421	.319	.303	.366
3	-.133	.251	.609	.450	.346	.335	.444
4	-.173	.261	.663	.458	.346	.358	.534
5	-.245	.335	.781	.462	.307	.386	.624
6	-.039	.285	.697	.452	.157	.411	.755
7	-.186	-.365	-.624	.225	-.106	.427	.879
8	-.424	-.520	-.614	-.623	-.620	.425	-1.018
9	-.506	-.581	-.646	-.678	-.830	.119	-1.427
10	-.576	-.556	-.656	-.683	-.820	-.816	-1.327
11	-.500	-.483	-.481	-.499	-.495	-.513	-.487
12	-.731	-.704	-.697	-.709	-.718	-.736	-.734
13	.380	.306	.386	-.839	-.900	-.996	-1.843
14	.598	.441	.452	-.883	-.877	-.961	-2.552
15	.671	.505	.523	.357	.434	-.867	-.012
16	.349	.520	.505	.435	.568	-.746	.505
17	-.173	.103	.301	.406	.616	-.376	.202
18	-.606	-.464	-.090	.517	.822	-1.145	-1.082
19	-.649	-.534	-.769	.590	-1.616	-3.342	-1.779
20	-.567	-.614	-.751	-1.183	-1.429	-3.286	-.004
21	.416	-.630	-.010	-1.113	-1.432	-3.832	-.008
22	.590	-.620	-.613	-1.041	-2.930	-3.947	-.008
23	.733	.324	-.018	-1.101	.515	-3.521	-.010
24	-1.106	.123	-.010	-1.241	-2.755	-3.162	-.004
25	-1.914	-.904	-.669	.342	.720	-2.004	-.002
26	-1.696	-1.197	-.180	-1.880	-1.855	-.145	-.008
				$\delta_e = 20°$			
1	.053	.164	.417	.279	.224	.246	.278
2	-.051	.150	.523	.316	.255	.262	.321
3	-.116	.158	.560	.332	.277	.287	.396
4	-.185	.137	.636	.334	.275	.314	.488
5	-.220	.186	.888	.332	.240	.334	.596
6	-.240	.154	.730	.348	.081	.363	.722
7	-.091	-.256	-.511	.124	-.267	.381	.860
8	-.278	-.400	-.601	-.544	-.566	.375	-.957
9	-.358	-.484	-.603	-.639	-.784	-.055	-1.236
10	-.494	-.467	-.665	-.654	-.828	-.760	-1.163
11	-.486	-.475	-.454	-.493	-.499	-.479	-.425
12	-.740	-.725	-.708	-.754	-.750	-.738	-.681
13	.439	.252	.303	-.607	-1.499	-.904	-1.740
14	.610	.336	.337	-1.242	-1.766	-.939	-2.634
15	.661	.369	.387	.332	.420	-.857	-.014
16	.240	.352	.350	.373	.541	-.795	.254
17	-.128	.082	.196	.308	.568	-.621	-.167
18	-.437	-.348	-.074	.475	.863	-2.014	-1.114
19	-.778	-.426	-.648	.544	-1.523	-3.318	-1.610
20	-.844	-.545	-.687	-1.004	-1.337	-3.086	-.004
21	.411	-.682	-.006	-.988	-1.364	-3.471	-.008
22	.583	-.877	-.967	-.941	-2.919	-3.527	-.008
23	.750	.281	-.006	-.969	.503	-3.145	-.020
24	-1.069	.047	.008	-1.171	-2.596	-2.820	-.002
25	-1.821	-1.029	-.973	.326	.697	-3.555	-.008
26	-1.862	-1.775	-.382	-1.640	-2.099	-.096	-.030

TABLE 80 Continued

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 20°$

Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = 0°$			
1	.052	-.002	.610	-.012	.044	.114	.174
2	-.050	-.053	.667	-.002	.067	.123	.222
3	-.089	-.076	.762	-.022	.073	.157	.302
4	-.105	-.101	.833	-.032	.091	.182	.400
5	-.107	-.129	.726	-.024	.083	.202	.508
6	-.291	-.097	.364	.012	-.038	.231	.656
7	.010	-.136	-.331	-.065	-.376	.252	.836
8	-.132	-.255	-.372	-.389	-.463	.274	-.726
9	-.202	-.306	-.413	-.502	-.578	-.020	-.910
10	-.231	-.242	-.433	-.518	-.681	-.568	-.848
11	-.449	-.464	-.451	-.494	-.481	-.460	-.450
12	-.693	-.715	-.703	-.751	-.741	-.712	-.714
13	.093	.053	-.104	-.423	-.972	-.683	-1.436
14	.524	.016	-.185	-1.433	-2.339	-.683	-2.214
15	.623	-.025	-.248	.180	.325	-.609	-.002
16	.115	-.053	-.319	.121	.446	-.560	.350
17	-.004	-.018	-.309	-.065	.396	-.436	.048
18	-.247	-.152	-.061	.375	.883	-1.646	-.934
19	-.404	-.283	-.346	.457	-1.077	-2.358	-1.208
20	-.862	-.380	-.429	-.781	-.947	-2.157	.008
21	.351	-.376	.006	-.751	-1.016	-2.454	.006
22	.520	-1.368	-.864	-.692	-2.366	-2.536	.006
23	.750	.146	.002	-.749	.487	-2.215	.008
24	-.786	-.023	.008	-1.032	-2.105	-2.247	.010
25	-1.266	-.735	-.567	.393	.665	-2.853	.008
26	-1.150	-1.304	-.217	-1.312	-1.790	-.131	-.016
				$\delta_e = -20°$			
1	.069	-.072	-.212	-.190	-.057	.038	.110
2	.010	-.142	-.258	-.260	-.051	.040	.156
3	.024	-.173	-.413	-.270	-.065	.061	.238
4	.022	-.211	-.431	-.280	-.033	.087	.337
5	-.063	-.277	-.183	-.252	-.014	.111	.457
6	-.271	-.275	-.452	-.207	-.047	.139	.591
7	.077	-.027	-.171	-.157	-.260	.180	.813
8	-.010	-.119	-.317	-.303	-.368	.218	-.608
9	.008	-.111	-.298	-.403	-.460	.024	-.736
10	.020	.006	-.206	-.446	-.540	-.471	-.691
11	-.454	-.448	-.454	-.444	-.444	-.455	-.398
12	-.707	-.696	-.710	-.699	-.699	-.713	-.656
13	-.029	-.125	-.365	-.329	-.757	-.600	-1.089
14	.035	-.285	-.421	-.978	-1.871	-.541	-1.937
15	-.014	-.386	-.562	.121	.262	-.479	.010
16	.006	-.446	-.659	.141	.407	-.432	.246
17	.291	-.173	-.556	.023	.432	-.283	.033
18	-.012	.070	-.056	.288	.875	-1.430	-.825
19	-.114	-.148	-.212	.384	-.898	-1.889	-1.000
20	-.434	-.205	-.298	-.648	-.759	-1.725	.016
21	.303	.051	.008	-.626	-.892	-2.002	.006
22	.497	-.626	-.462	-.552	-2.160	-2.131	.018
23	.796	.064	.008	-.669	.476	-1.857	.002
24	-.684	-.010	.010	-.930	-1.857	-2.079	.014
25	-1.053	-.589	-.254	.407	.646	-2.366	.016
26	-1.120	-1.096	-.095	-1.493	-1.646	-.198	-.014
				$\delta_e = -30°$			
1	.037	-.105	-.449	-.277	-.091	-.008	.076
2	-.037	-.179	-.549	-.359	-.097	-.004	.120
3	-.055	-.203	-.633	-.392	-.121	.024	.204
4	-.051	-.221	-.685	-.402	-.087	.047	.304
5	-.055	-.245	-.665	-.382	-.056	.067	.422
6	-.177	-.292	-.846	-.343	-.044	.102	.568
7	.064	.002	-.118	-.191	-.195	.148	.796
8	.002	-.087	-.222	-.243	-.306	.197	-.556
9	-.008	-.028	-.214	-.400	-.408	.047	-.696
10	.008	-.004	-.108	-.400	-.481	-.425	-.646
11	-.423	-.441	-.433	-.434	-.425	-.429	-.394
12	-.674	-.696	-.691	-.693	-.684	-.683	-.650
13	-.062	-.243	-.537	-.257	-.485	-.520	-.844
14	-.121	-.324	-.701	-.739	-1.501	-.502	-1.864
15	-.121	-.416	-.994	.084	.227	-.435	-.010
16	-.158	-.569	-1.351	.141	.370	-.413	.236
17	.382	-.270	-.758	.118	.414	-.301	.034
18	.205	.159	-.044	.263	.855	-1.354	-.742
19	.573	-.076	-.150	.359	-.809	-1.776	-.958
20	-.135	-.064	-.220	-.602	-.680	-1.602	-.002
21	.283	.280	.002	-.586	-.819	-1.846	-.016
22	.470	-.358	-.261	-.506	-2.024	-1.943	-.004
23	.760	.040	.000	-.641	.463	-1.659	-.012
24	-.614	-.002	.006	-.908	-1.726	-1.868	-.002
25	-1.012	-.545	-.122	.436	.630	-2.222	-.004
26	-1.080	-1.022	.000	-1.562	-1.553	-.171	-.028

TABLE 80 Concluded

Pressure coefficients on the left side fin. High aspect ratio tail configuration.

$\psi = 0°$; $\delta_r = 0°$; $\alpha = 20°$

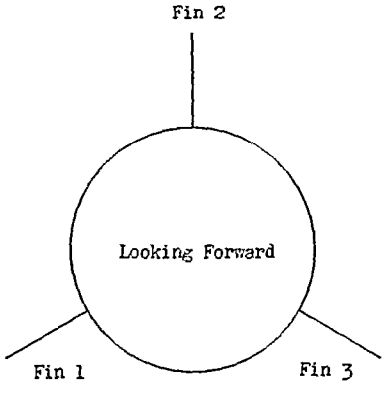
Tube No.	Manometer Number 1	2	3	4	5	6	7
				$\delta_e = -40°$			
1	-.078	-.211	-.421	-.239	-.101	-.018	.060
2	-.172	-.341	-.468	-.279	-.103	-.016	.104
3	-.218	-.347	-.696	-.333	-.135	.014	.192
4	-.228	-.367	-.881	-.307	-.097	.032	.288
5	-.098	-.367	-.942	-.213	-.067	.052	.406
6	-.206	-.380	-1.056	-.201	-.040	.082	.558
7	.014	.048	-.073	-.171	-.176	.126	.788
8	-.040	-.036	-.153	-.127	-.246	.176	-.516
9	-.044	.096	-.159	-.331	-.380	.056	-.648
10	-.012	-.024	-.065	-.317	-.448	-.386	-.608
11	-.413	-.426	-.415	-.408	-.424	-.432	-.390
12	-.675	-.677	-.669	-.657	-.687	-.688	-.650
13	-.359	-.313	-.476	-.325	-.493	-.504	-.702
14	-.269	-.363	-.641	-.526	-1.305	-.458	-1.822
15	-.285	-.422	-1.280	.080	.226	-.398	-.010
16	-.257	-.524	-1.861	-.014	.382	-.374	.272
17	.357	-.038	-1.540	-.345	.428	-.270	.136
18	.355	.239	-.032	.249	.848	-1.264	-.686
19	.703	-.044	-.105	.341	-.798	-1.612	-.906
20	.078	.112	-.133	-.534	-.663	-1.474	-.008
21	.285	.472	.012	-.520	-.820	-1.712	-.018
22	.473	-.110	-.141	-.450	-2.000	-1.854	-.016
23	.774	.076	-.002	-.590	.473	-1.568	-.022
24	-.573	-.002	.012	-.833	-1.697	-1.878	-.008
25	-.902	-.492	-.063	.430	.626	-2.060	-.008
26	-.974	-.926	-.028	-1.333	-1.503	-.190	-.032

TABLE 81

ORIFICE LOCATIONS FOR STANDARD TAIL

Tube No.	Manometer 1	Manometer 2	Manometer 3	Manometer 4	Manometer 5	Manometer 6	Manometer 7	Manometer 8	Manometer 9
1	95	94	92	70	68	66	65	64	0"
2	100	90	88	59	50	49	56	54	3"
3	99 White side	86 White Side	84 White Side	51 White Side	29 White Side	40 White Side	48 White Side	46 White Side	9"
4	98	82	80	43	16	27	39	37	2-0"
5	97	78	76	31	7	23	35	33	3-4"
6	96	74	72	18	2	14	26	24	5-0" Left Side
7	79	94	92	9	68	4	22	64	7-0"
8	75	90 Brown Side	88 Brown Side	70	50	66	12	54 Brown Side	10-0"
9	95	86	84	59	29	49	65	46	13-6"
10	100	82	80	51 Brown Side	16 Brown Side	40 Brown Side	56 Brown Side	37	15-0"
11	99 Brown Side	78 Brown Side	76 Brown Side	43 Brown Side	7 Brown Side	27 Brown Side	48 Brown Side	33 Brown Side	16-0"
12	98	74	72	31	2	23	39	24	17-0"
13	97	93	71	18	67	14	35	62	18-0"
14	96	89 White Side	60 White Side	9	57	4	26 Brown Side	52 White Side	18-0"
15	79	85 White Side	44 White Side	69	41 White Side	55	22	104 White Side	17-0"
16	75	81 White Side	32 White Side	58	28	47	12	62	16-0"
17	83 White	77 White Side	19 White Side	42 White Side	15 White Side	38 White Side	63	52 Brown	15-0"
18	83 Brown	73	10	30 White Side	6 White Side	34 White Side	53 White Side	61 White	13-6"
19	87 White	93	71	17 White Side	1	25 White Side	45 White Side	105 White	10-0" Right Side
20	87 Brown	89 Brown Side	60 Brown Side	8	67	21	36 White Side	61 Brown	7-0"
21	91 White	85	44	69	57	55	102	106	5-0"
22	91 Brown	81	32	58	41	47	63	103	3-4"
23	3 White	77 Brown Side	19 Brown Side	42 Brown Side	28 Brown Side	38 Brown Side	53 Brown Side	20 White	2-0"
24	3 Brown	73	10	30	15 Brown Side	34 Brown Side	45 Brown Side	20 Brown	9"
25	13 White	5 White		17	6	25 Brown Side	36 Brown Side	11 White	3"
26	13 Brown	5 Brown		8	1	21	101	11 Brown	0"

Airship Fin Arrangement



Notes:

1. Values for manometer 9 represent hull stations measured rearward.
2. White side for fin 2 is to left.
3. White side for fin 1 is underside.
4. This chart applies to both fin 1 and fin 2; only these two fins were used for pressure studies.
5. Unreliable manometer tubes during this test were
   (a) Tube 8, manometer 3, fin 1
   (b) Tubes 15 and 16, manometer 3, fin 2
6. Questionable manometer tubes were
   (a) Tubes 14 and 21, manometer 3, fin 1
   (b) Tube 3, manometer 4, fin 2
   (c) Tube 22, manometer 7, fin 2
   (d) Tube 7, manometer 8, fin 2
7. On fin 1, for manometer 3, tube 21 is read on tube 25.

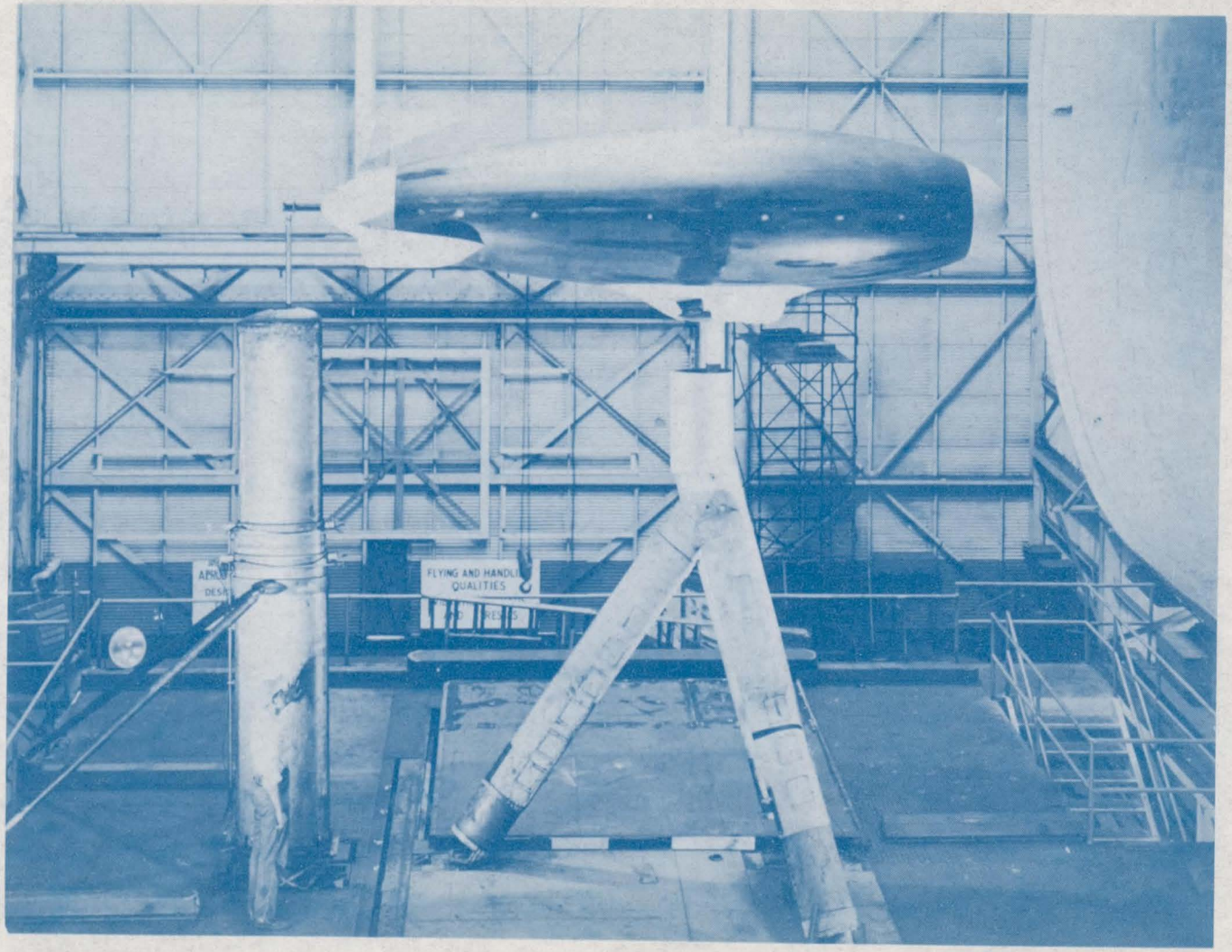
TABLE 82

ORIFICE LOCATIONS FOR HIGH-ASPECT-RATIO TAIL

Tube No.	Manometer 1	Manometer 2	Manometer 3	Manometer 4	Manometer 5	Manometer 6	Manometer 7
1	84	73	72	41	48	47	46
2	83 White Side	69 White Side	68 White Side	29 White Side	35 White Side	40 White Side	39 White Side
3	82	67 1/2	66	24 1/2	24	34	32
4	80	64	63	19	14	28	26
5	78	60	59	15	9	23	21
6	77	57	55	10	4	18	16
7	84	73	72	5	1	13	11
8	83 Brown Side	69 Brown Side	68 Brown Side	41 Brown Side	48 Brown Side	7 Brown Side	46 Brown Side
9	82	67 1/2	66	29	35	2	39
10	80	64	63	24 1/2	24	47	32
11	78	60	59	19	14	40	26
12	77	57	55	15	9	34	21
13	85 White Side	75 White Side	74 White Side	10	4	28	16
14	81	71	70	5	1	23	11
15	79	67	65	33	38	18	
16	76	62	61	27 White Side	31 White	13	44 White
17	85 Brown Side	56	58	22	25	7	36
18	81	75 Brown Side	74 Brown Side	17	20	2	44 Brown
19	79	71	70	12	38	49	36
20	76	67	65	33	31 Brown	50	
21	45	62 Brown	61 Brown	27	25 Brown	51	
22	37 White	56	58	22	20	52	
23	30	8		17 Brown Side	43 W.	53	
24	45	3 White		12	43 B.	54	
25	37 Brown	8		42 W.	6 W.	1 1/2	
26	30	3 Brown		42 B.	6 B.		

Notes:

1. High-aspect-ratio fin arrangement is the same as that for the standard fins.
2. White side for fin 2 is to left.
3. White side for fin 1 is underside.
4. This chart applies to both fin 1 and fin 2; only these two fins were used for pressure studies.
5. Unreliable manometer tubes during this test were
   (a) Tube 10, manometer 2, fin 1
   (b) Tube 7, manometer 4, fin 2
6. Questionable manometer tubes were
   (a) Tube 5, manometer 1, fin 1
   (b) Tubes 5 and 18, manometer 3, fin 1; tube 14, manometer 3, fin 2
   (c) Tube 8, manometer 4, fin 2
   (d) Tube 13, manometer 6, fin 1; tube 2, manometer 6, fin 2
7. On fin 1, for manometer 3, tube 21 is read on tube 25.



L-85370

Figure 1.- General view of Goodyear XZP5K airship model with standard tail installed.

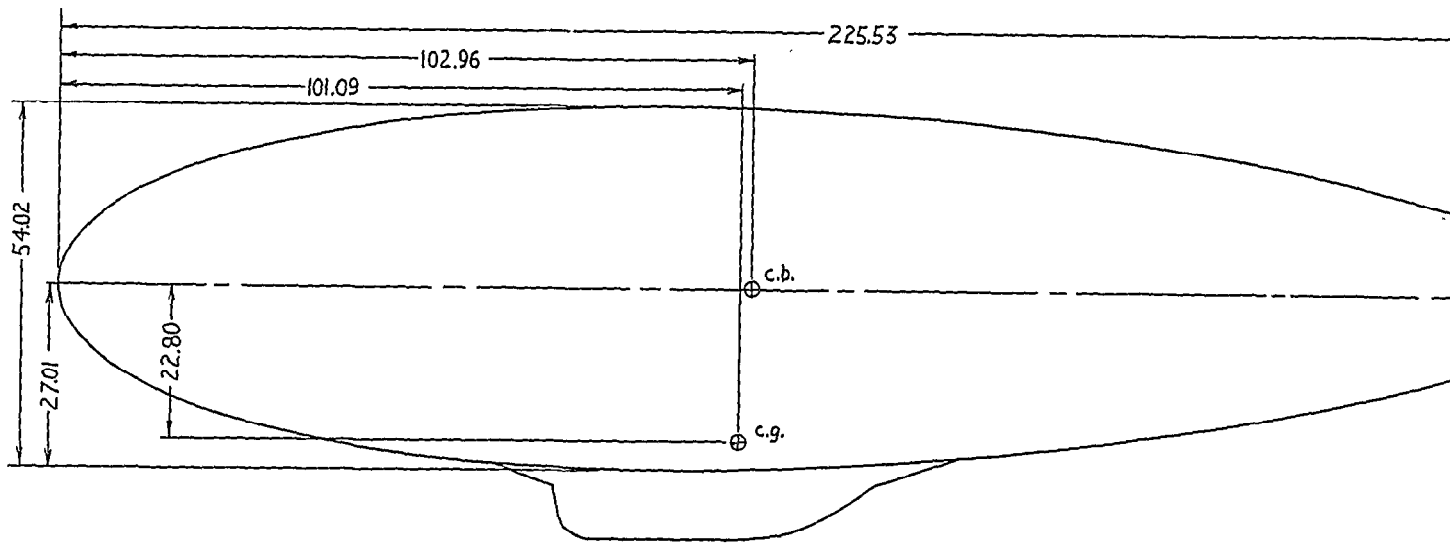
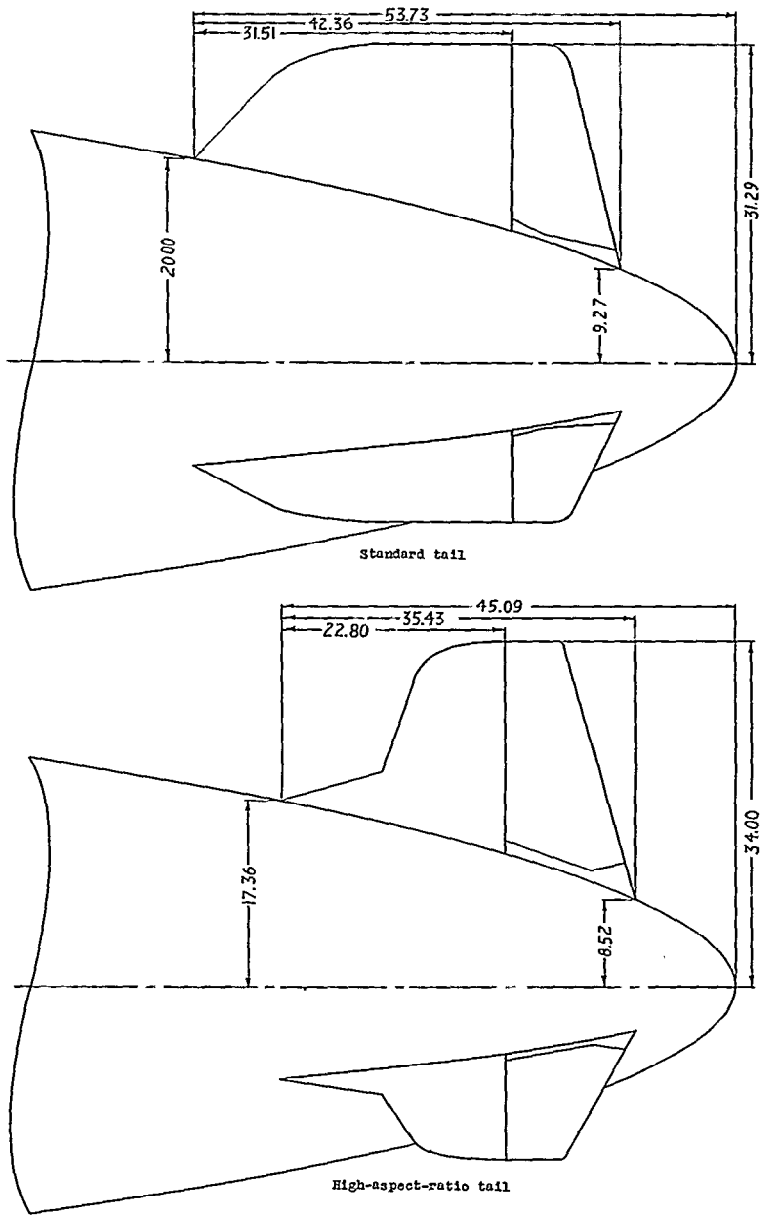
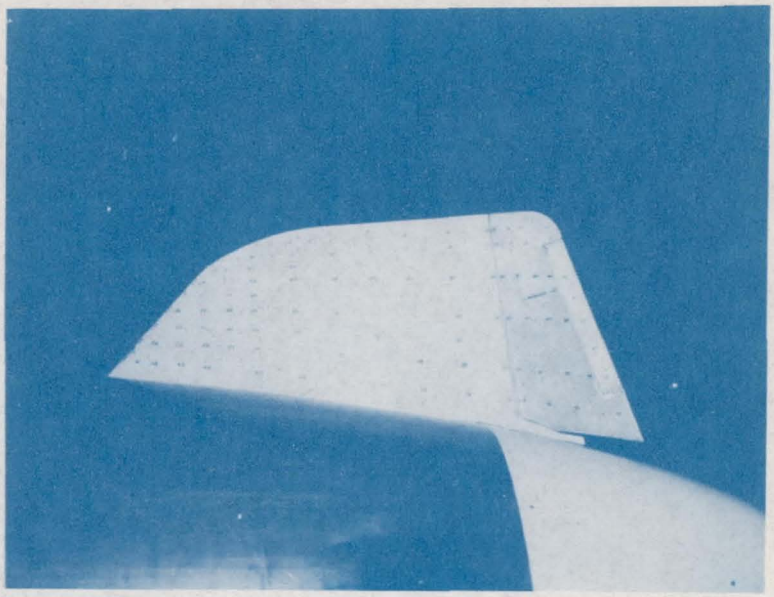


Figure 2.- Geometric characteristics of hull of airship model. Dimensions are in inches.



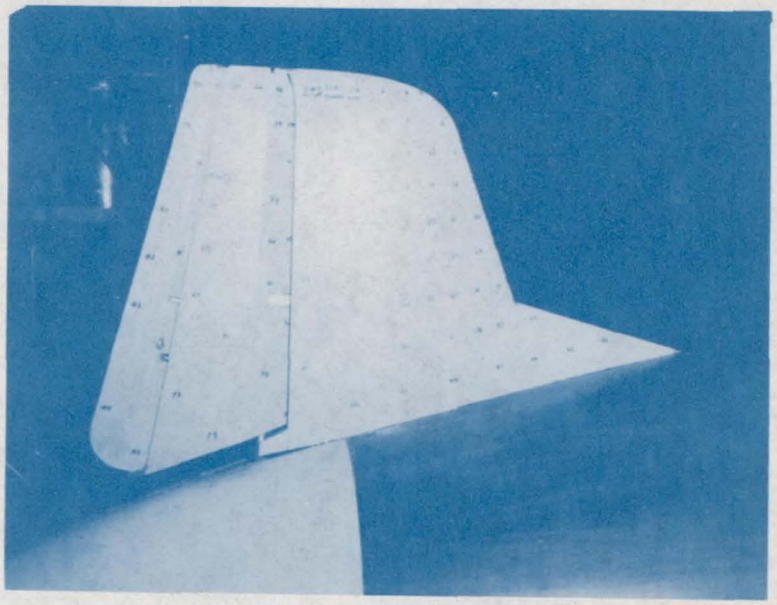
Type of Tail	Control area	Fin area
Standard	0.92	3.82
High aspect ratio	1.36	3.03

Figure 3.- Sketch of standard and high-aspect-ratio tails. Dimensions are in inches; area, in square feet.



L-85375

Standard tail



High-aspect-ratio tail

L-85571

Figure 4.- Top fin of each tail configuration.

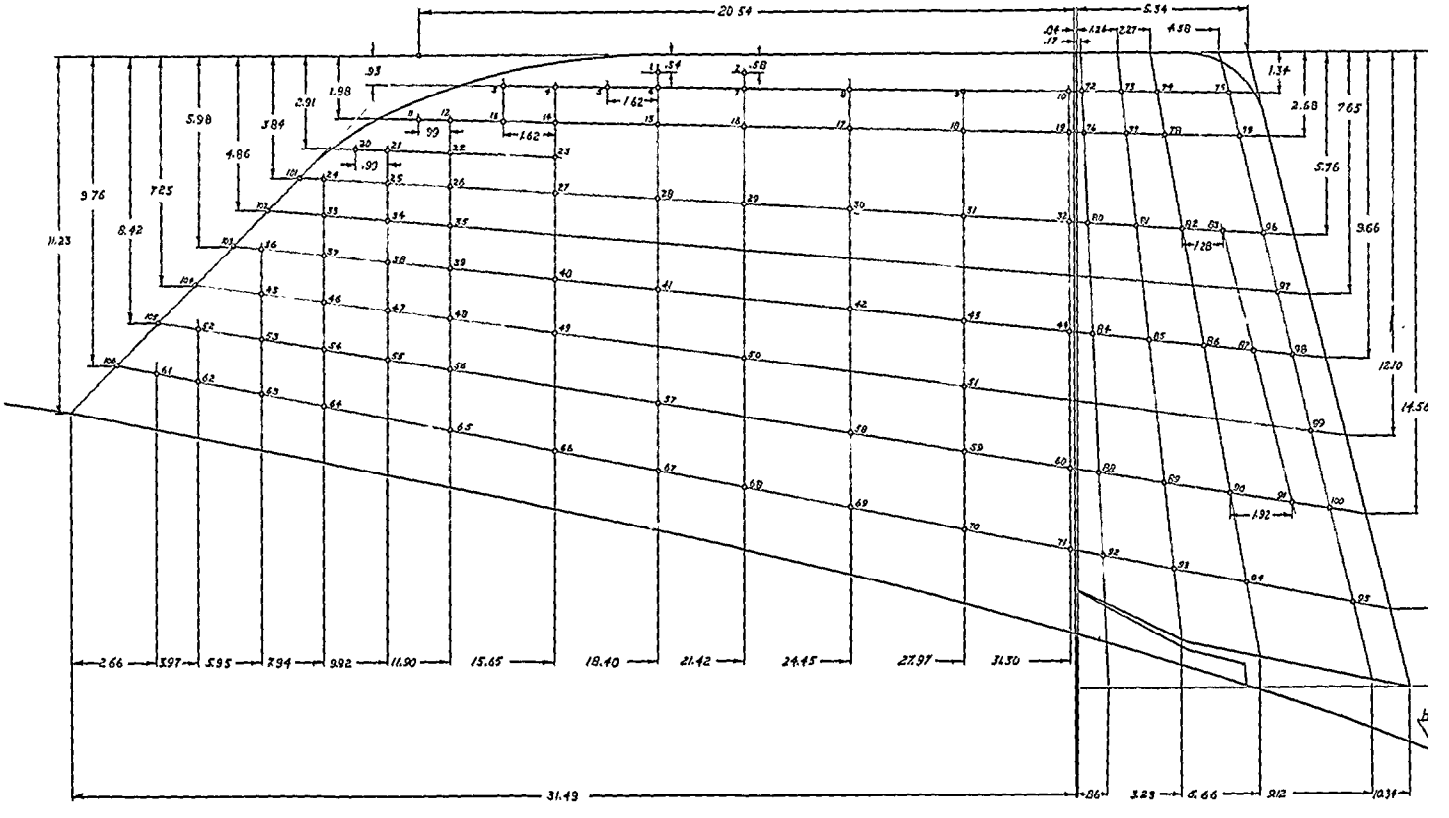


Figure 5.- Orifice locations for the standard tail. Dimensions are in inches.

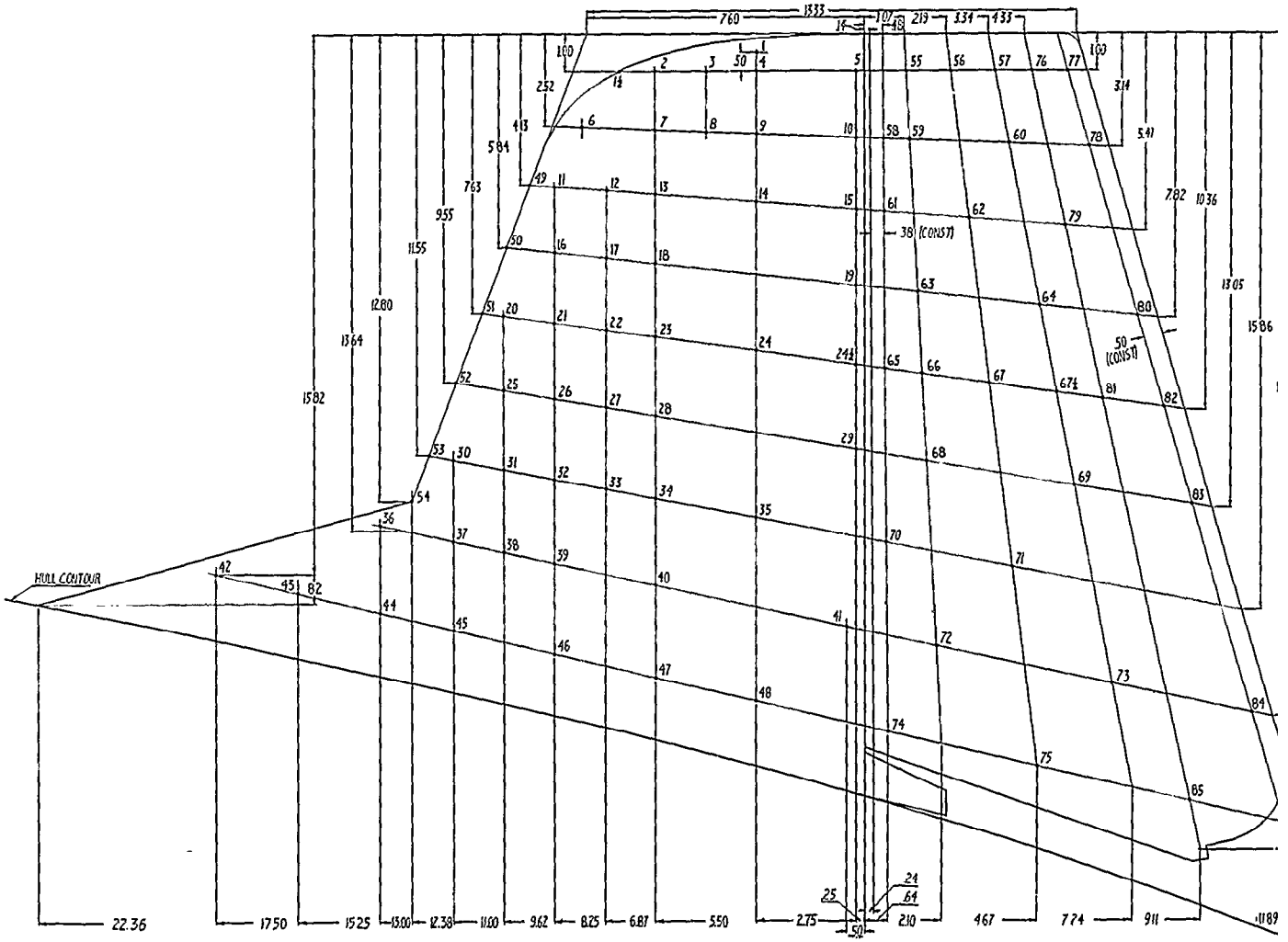


Figure 6.- Orifice locations for the high-aspect-ratio tail. Dimensions are in inches.

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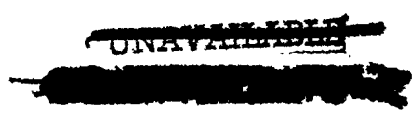
ABSTRACT

This paper contains tail and hull loads data obtained in an investigation of a 1/15-scale model of the Goodyear XZP5K airship. Data are presented in the form of tabulated pressure coefficients over a pitch and yaw range of $\pm 20^{\circ}$ and 0° to 30°, respectively, with various rudder and elevator deflections. Two tail configurations of different plan forms were tested on the model. The investigation was conducted in the Langley full-scale tunnel at a Reynolds number of approximately 16.5×10^6 based on hull length, which corresponds to a Mach number of about 0.12.


UNAVAILABLE